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EDWARDS'S
BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN
AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,

CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

EDITED

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&c. &c. &c.

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VOL. V.

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1

Miss Drake del. Pub by J Ridgway 169 Piccadilly Jan^y 1. 1842 G. Barclay sc

CĀTTLĔYĂ granulōsă.

Rough-lipped Cattleya.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
CATTLEYA. *Botanical Register, vol.* 11, *fol.* 953.

C. *granulosa;* caulibus teretibus gracilibus diphyllis, foliis oblongo-lanceolatis obtusis, sepalis oblongis obtusis, petalis obovato-spathulatis undulatis obtusissimis, labello cucullato tripartito: laciniis lateralibus semiovatis intermediâ sinu lato divulsâ ungue æquilateri lævi laminâ dilatatâ rotundatâ plicatâ granulosâ denticulatâ.

Of this, at present the rarest of the genus, a single small specimen exists in the garden of the Horticultural Society, where it was sent by Mr. Hartweg from Guatemala, without any intimation as to its native habits.

It has a slender stem, terminated by two narrow leaves, something like those of C. bicolor, but shorter. When it flowered only one blossom was formed, such as here represented; but it will probably bear a larger number when in health. The sepals were two inches and a half long, oblong, olive green, mottled with rich brown spots. The petals were obovate, very much rounded at the point, and narrowed to the base; wavy at the margin, and of the same colour as the sepals. Strongly contrasted with the dingy colours of those parts is the lip, of a pure white at the sides and point, and of a glowing orange spotted with crimson in the middle; its lateral lobes curve over the column, but are divided very deeply from the middle lobe by a wide slit; the middle lobe itself has its surface broken up into numerous granulations, something in the way of C. guttata.

The high temperature and excessive moisture which suits so well the Indian Dendrobiums is most injurious to this

Cattleya. A night temperature of 55° in winter and 60° in summer is quite high enough for it; and by planting it in well drained turfy peat, and keeping it rather dry when not growing, it will be found one of the easiest to manage.

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2

LESCHENĀULTĬĂ bĭlŏbă.

Large Blue Leschenaultia.

PENTANDRIA *MONOGYNIA*.

Nat. ord. GOODENIACEÆ.

LESCHENAULTIA. *R. Brown.* *Calyx* tubo oblongo v. lineari, cum ovario connato, limbi superi quinquefidi laciniis æqualibus. *Corolla* supera, tubulosa, postice fissa, limbi quinquepartiti laciniis subæqualibus, conniventibus v. inæqualibus, uni-bilabiatis, labii superioris connatis v. distinctis, omnibus alatis, æstivatione induplicatis. *Stamina* 5, cum corolla inserta ; filamenta libera ; antheræ sub anthesi cohærentes. *Ovarium* inferum, biloculare. *Ovula* juxta dissepimentum utrinque biseriata . . . . . . *Stylus* simplex ; *stigma* in fundo indusii horizontaliter bilabiati obsoletum. *Capsula* prismatica, bilocularis, quadrivalvis, valvis oppositis medio septiferis. *Semina* cubica v. cylindracea, nucamentacea. Embryo . . . . .——Fruticuli *ericoidei, in Nova Hollandia indigeni, rarius* herbæ ; foliis *angustis, integerrimis,* floribus *axillaribus v. terminalibus, subsolitariis, rubris,* pollinis *granulis e sphærulis quatuor coalitis compositis.* Endlicher.

L. *biloba ;* foliis linearibus obtusis, floribus in corymbo paucifloro laxè aggregatis, sepalis tubo corollæ æqualibus, corollâ extùs glabrâ intùs stuposâ laciniis cuneatis altè bilobis mucrone interjecto, filamentis glabris.

L. biloba. *Lindley Appendix Bot. Reg.* 1839, *p.* xxvii.

L. grandiflora. *DeCand. Prodr.* 7. 519.

Few plants have, from the report of travellers, excited more interest than this; for the beauty of the old Leschenaultias has rendered them universal favourites, and a new species of the genus with large blue flowers could not fail to be still more ornamental. The plant in question is now laid before the readers of the Botanical Register, and its merits can scarcely be said to have been exaggerated ; for what can be more lovely than its deep azure flowers on so delicate and heath-like a foliage. If it should prove to be as profuse a bloomer as the others, it will be one of the best species recently acquired for gardens. If it should not, we would advise those who are in correspondence with Western Australia not to despair ; because there are other species, one too with blue flowers, the L. grandiflora of the Sketch of the

Swan River Flora, which appear from the dried specimens to be loaded with blossoms of a much larger size than this.

It is believed that Messrs. Lowe and Co. of the Clapton nursery had the honour of raising this plant first: it was, howver, earliest flowered by Messrs. Veitch & Sons of Exeter, who exhibited it before the Horticultural Society, and obtained the large silver medal for it.

By one of those unfortunate coincidences which now and then occur, the last volume of DeCandolle's Prodromus, containing the Goodeniaceous and Stylidiaceous orders, was published about the same time as the Sketch of the Vegetation of the Swan River Colony; and hence there are many plants in the one, described under different names in the other. Both appear to have been published at the end of 1839; but the Sketch was all printed in the month of November of that year, and two-thirds were actually published by December the first: while DeCandolle's Prodromus could hardly have been on sale sooner than January, 1840; no copy that we are aware of was in London before March, 1840. If so, the names in the Sketch will stand, and DeCandolle's must give way, according to the usage of Botanists in such cases.

It is a hardy greenhouse plant, and as easily managed as the old L. formosa. Cuttings root freely in spring and summer, if covered with a bell-glass and plunged in a mild bottom heat. The young plants ought to have their shoots carefully stopped, to enable them to send out numerous branches and form compact bushes. It grows well in a mixture of peat and vegetable mould, and would succeed well if planted out in the border of a conservatory.

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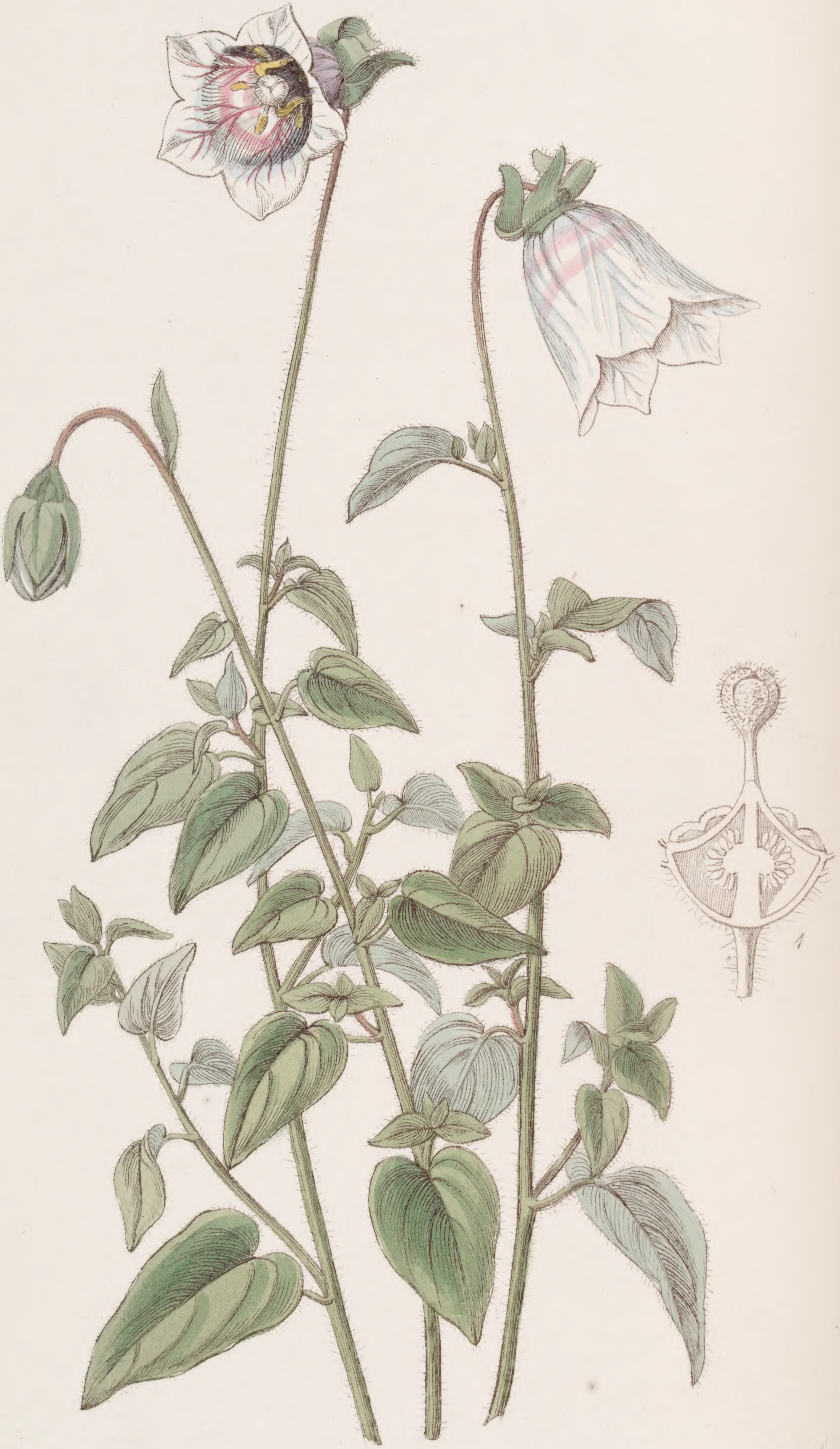

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* GLOSSOCŎMĬĂ ovātă.

Ovate Pouchbell.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CAMPANULACEÆ.

GLOSSOCOMIA. *D. Don.* Flos Codonopseos involucro orbatus calycisque laciniis foliaceis.

G. *ovata;* pubescens, adscendens, foliis cordato-ovatis petiolatis, calycis laciniis oblongis obtusis reflexis integerrimis.

Codonopsis ovata. *Benth. in Royle's Illustr.* 253. *t.* 69. *f.* 3.
Wahlenbergia Roylei. *Alph. DC. in Prodr.* 7. 425.

There exists in the North of India a race of climbing or half-climbing, fetid, soft, milky plants, with campanulate flowers, dull-coloured like those of an Atropa, and evidently bringing the Campanulaceous and Solanaceous orders into close contact. They may be said to have the habit of Canarina on a small scale. By Dr. Wallich they were placed in a genus he called Codonopsis, in which opinion he was at one time followed by M. Alphonse DeCandolle, and by Mr. Bentham. At a subsequent period, however, the former Botanist determined that one of the essential characters of Codonopsis must reside in each flower having an involucrum more or less adherent to a calyx, whose lobes are truncated. Such being the case, it became necessary to separate this and some other species, in which those characters are not found, from the genus Codonopsis. Alphonse DeCandolle in doing this transferred them to the genus Wahlenbergia, forming them into a section under the name of Megasanthes, adopted from George Don's general system of gardening.

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* According to D. Don this name was formed by him from *γλωσσοκομος* a money bag, because of the resemblance of the flower to it; a resemblance which we do not profess to recognize. Such, however, being the admitted meaning of the word, it must be written Glossocomia, and not Glosocomia as it is found in books.

To no part of this arrangement can I assent. Nothing can be more unnatural than to mix up these fetid, soft-leaved, scandent, lurid plants with Wahlenbergia, which in all its habits more resembles the little Cape Lobelias. It is impossible they can belong to the same genus. As little can it be permitted that the name Megasanthes, first propounded in a work of no Botanical authority, should take precedence, whether for sectional or generic purposes, of the much older name Glossocomia, applied about twenty years since to one of the species, afterwards merged in Codonopsis, and now separated again. It may be difficult to say what the real characters of the genus may be; but it is impossible to doubt that it is different both from Wahlenbergia, and from Codonopsis as now limited.

The Codonopsis lurida, described in this work in the miscellaneous matter for 1839, no. 126, is another species of Glossocomia.

Fig. 1. represents a vertical section of the three-celled ovary, showing the nature of the placenta.

A pretty hardy perennial, with spindle-shaped roots; rather pretty, much slenderer than G. lurida, but not inclined to twine like that species, and seldom growing more than one foot and a half high. It flourishes well in any good garden soil, and flowers in July.

It is easily increased from seeds, treated like those of Campanula carpatica, and the more slender of that genus.

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ONCĪDĬŪM longifŏlĭŭm.

Long-leaved Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
ONCIDIUM. *Botanical Register, vol.* 9, *fol.* 727.

O. *longifolium ;* (Cebolletæ) foliis teretibus longissimis diffusis, scapo erecto densè paniculato, sepalis petalisque apiculatis obtusis concavis, labelli lobis lateralibus patentibus obliquè oblongis subquadratis intermedio obovato bifido basi angustato minoribus, tuberculo basi depresso anticè tricorni glabro, columnæ alis sublunatis brevibus rotundatis. *Botanical Register,* 1841. *misc.* 56.

Folia *tripedalia, flagelliformia, prostrata.* Scapus 3-4-*pedalis paniculatus.* Sepala *et* Petala *lutea sanguineo maculata ; labellum luteum sanguineo prope basin marginatum.*

Under the name of Oncidium Cebolleta many very different species exist in our gardens, among which the finest is that now figured, which, although it has the foliage of that species, is really very different, forming dense panicles, three feet long, of very large and showy yellow and brown flowers. Its leaves are often three feet long, and hang down or spread upon the ground instead of standing stiff and erect. It has been imported abundantly by the Horticultural Society from Mexico, and has flowered both in their garden and with Messrs. Loddiges. It is very handsome, and well worth growing.

From all the allied species it differs in the great length of its whip-like leaves, and in the form of its labellum, whose lateral lobes are something like bird's wings in shape, while the intermediate lobe has an unusually long unguis gradually dilating into a two-lobed extremity.

In cultivation it requires a warm damp atmosphere, where such plants as Cattleyas, Lælias, and Stanhopeas flourish. A temperature ranging from 55° to 65° with artificial heat, will be quite sufficient. It will grow very well amongst turfy peat in a pot; but we prefer suspending it in a forked block of wood, and allowing the long leaves to hang gracefully down, as they do in its native woods. If grown in this way, the cultivator must fix it firmly to the block, and pack the roots all round with turfy peat or sphagnum, and take care that it is freely watered, particularly when it is growing. Plants which are hung up in this manner are not likely to suffer from too much water.

It is propagated in the usual way, by division.

The other species of this section are the following; viz.

O. *brachyphyllum;* foliis crassissimis brevibus erectis acutis, paniculâ laxâ pauciflorâ, sepalis petalisque obovatis acuminatis longè unguiculatis, labelli lobis lateralibus patentibus ovalibus acutis intermedio reniformi emarginato longioribus, tuberculo tricorni subverrucoso, columnæ alis sublunatis brevibus rotundatis.

This is a Mexican species, with very short stiff leaves, and smaller panicles, not above eighteen inches high.

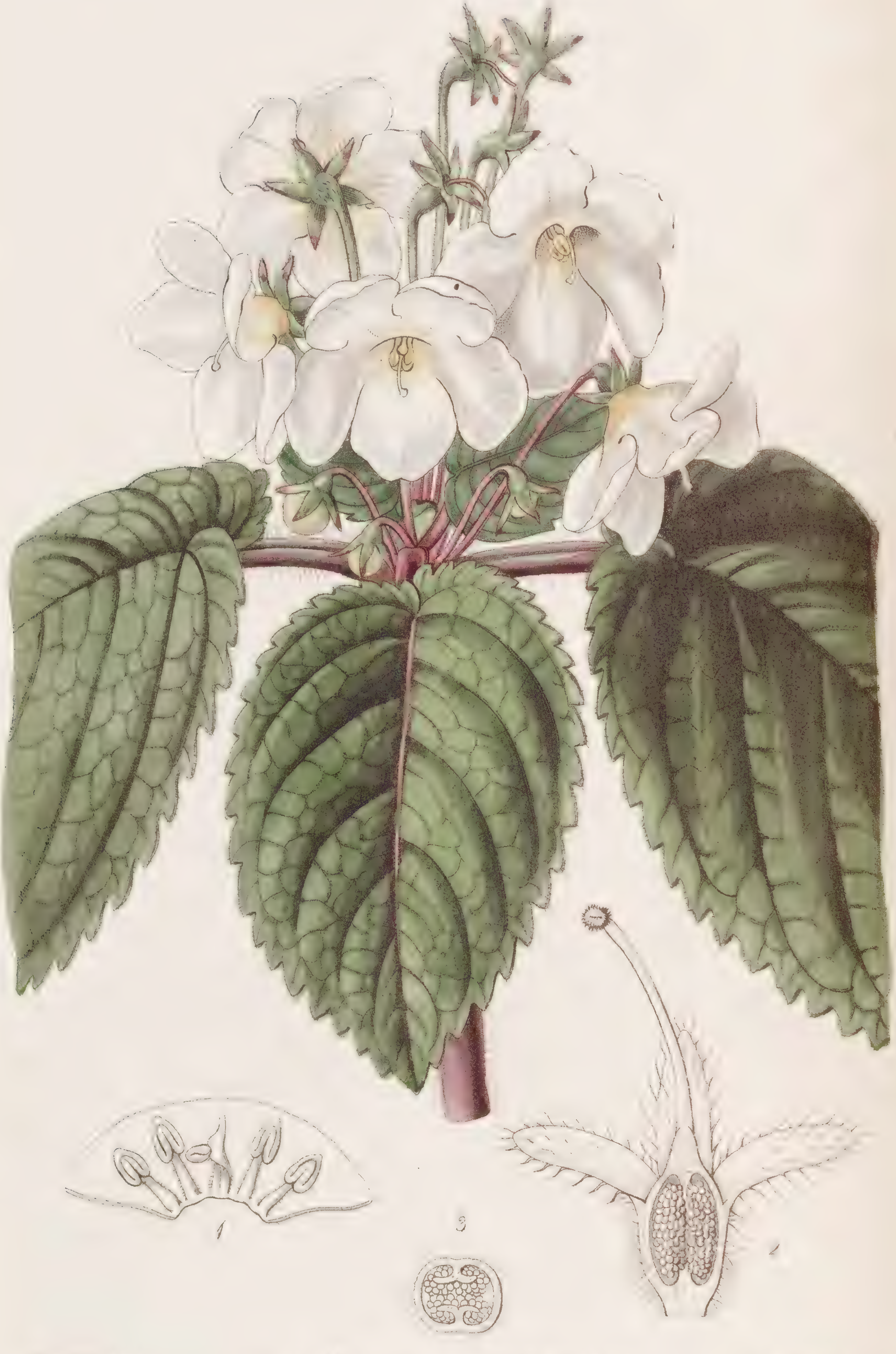
O. *ascendens;* foliis erectis junceis, scapo stricto paniculato æqualibus, sepalis petalisque obovatis obtusis concavis, labelli lobis lateralibus nanis erectis intermedio reniformi emarginato, tuberculo ovato 7-dentato, columnæ alis linearibus integerrimis incurvis.

This is from Guatemala, and has much the habit of O. Cebolleta; but the linear wings of the column, the small erect lateral lobes of the lip, and the many-toothed tubercle distinguish it at once.

O. *Cebolleta.* Suprà fol. 1994.

Of this there are several varieties, one of which has the back of the lip covered with crimson spots, and another has no spots at all.

O. *nudum.* Supra fol. 1994.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* NIPHÆĀ oblōngă.

Oblong Snow-wort.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.

NIPHÆA. (Supra 1841. misc. 172.) *Calyx* semisuperus, æqualis, 5-partitus. *Corolla* rotata, subæqualis; laciniis superioribus paulo minoribus et magis connatis. *Stamina* inclusa, libera, conniventia; 4 fertilia, subæqualia, antheris glabris ovatis; quintum sterile, carnosum, corollæ dorso suo adnatum, deforme. *Glandulæ* perigynæ o. *Ovarium* 1-loculare, placentis didymis polyspermis; stigma simplex.—— Herba *Ramondæ cujusdam caulescentis facie;* foliis *rugosis in verticillum approximatis,* floribus *axillaribus terminalibusque aggregatis candidis.*

N. *oblonga.* Bot. Reg. 1841. misc. 172.

Folia *rugosa, oblonga, cordata, hirsuta, petiolata, grossè serrata, circa caulem brevem quasi verticillata.* Pedunculi *rubescentes, aggregati, axillares et terminales, uniflori, 1½-2-pollicares.* Corollæ *vix diametro sesquipollicaris laciniæ rotundatæ, concavæ, demum revolutæ.*

Although not to be compared for beauty with the charming Achimenes rosea, or the still more striking Achimenes longiflora, introduced by the Horticultural Society from Guatemala, yet our Niphæa is itself a great acquisition from the same country, where these and many more species of a similar nature were found by Mr. Hartweg. It is the more acceptable because it is one of the few instances of a pure white flower among the Gesneraceous order.

In its appearance it is much like Ramonda pyrenaica, but both the form and colour of the flowers are different. In habit it approaches some of the stemless Gesneras. In structure it is very distinct from all the genera of its order yet upon record; from Rytidophyllum, Gesnera, Gloxinia, and Achimenes in the want of a disk; and from Mitraria and Conradia in the rotate corolla. Conradia pumila, a plant I am unacquainted with, may be another species of Niphæa.

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* From νιφος snow; in allusion to its spotless flowers.

Fig. 1. represents the tube of the corolla laid open, to shew the stamens. Fig. 2. is a vertical section of the ovary. Fig. 3. shews the ovary, as seen when divided transversely.

Like many other plants from Guatemala, it seems to require a temperature between that of a greenhouse and stove. In its general habits it resembles Achimenes rosea, described at page 65. It flowers in the autumn and winter, after which the stems die off, and the plant remains in a dormant state until the following season. When in this state it ought of course to be kept perfectly dry, on a light warm shelf, and then when the season of rest is past, which will be indicated by the young stems making their appearance, it may be repotted and liberally supplied with water. It forms a great number of curious imbricated scaly buds, both on the surface and under ground, by which means it may easily be multiplied in the same manner as the Achimenes ; it also strikes readily by cuttings. Any rich light soil will do for its cultivation.

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LYSIMĂCHĬĂ lobelioīdĕs.

Lobelia-like Loose-strife.

PENTANDRIA *MONOGYNIA.*

Nat. ord. PRIMULACEÆ.

LYSIMACHIA. Moench. Calyx quinquepartitus. *Corolla* hypogyna, subrotata, tubo brevissimo, limbo quinquepartito, explanato v. connivente. *Stamina* 5 v. 10, corollæ fauci inserta, quinque ejusdem laciniis opposita, fertilia, alterna breviora ananthera, sæpissime nulla; *filamenta* filiformia, libera v. ima basi in annulum cohærentia, antheræ oblongæ, biloculares, longitudinaliter dehiscentes. *Ovarium* uniloculare, placenta basilari subglobosa. *Ovula* plurima, peltatim amphitropa. *Stylus* filiformis, *stigma* obtusum. *Capsula* subglobosa, stylo persistente cuspidata, unilocularis, quinquevalvis, nunc bivalvis, valvis apice demum bitrifidis. *Semina* plurima, orbiculata v. angulata, placentæ basilaris globosæ liberæ foveolis semi-immersa, dorso plana, ventre convexo umbilicata. *Embryo* in axi albuminis carnosi rectus, umbilico parallelus.——Herbæ *perennes, in temperatis hemisphæræ borealis indigenæ, erectæ v. procumbentes;* foliis *alternis, oppositis v. integerrimis, interdum punctato-glandulosis,* floribus *axillaribus solitariis v. racemosis, nunc terminalibus spicatis v. spicato-racemosis, flavis v. albido-roseis aut purpurascentibus.* Endlicher.

L. *lobelioides;* caulibus adscendentibus, foliis oppositis ovatis subserratis breviter petiolatis, racemis terminalibus nudis multifloris, floribus nutantibus, corollis campanulatis quinquepartitis sepalis acutis paulò longioribus, staminibus exsertis, capsulis sphæricis. *Bot. Reg.* 1841. *misc.* 150.

Caulis *ascendens, teres, ramosus,* 1-2-*pedalis, ramis omnibus in racemum subsecundum abeuntibus.* Folia *ovata, integra, glabra, in petiolum angustata, opposita, summis tantùm alternis.* Bracteæ *subulatæ, pedicellis breviores.* Corolla *alba, basi rubescens, campanulata, obtusè* 5-*fida, calyce longior.* Stamina *exserta.* Capsula *sphærica, pisi parvi magnitudine, indehiscens, rosea, basi irregulariter rupta.*

Nepal, Kamaon, and other districts of Northern India produce this pretty species of Loosestrife, which was first found by Dr. Wallich's people in 1821, but which has been only recently introduced to our gardens by the Hon. Court of Directors of the East India Company, who presented seeds of it to the Horticultural Society.

It is a hardy perennial, well adapted for rockwork, and similar purposes ; for although its flowers are simple and unattractive they are very sweet-scented, and the foliage is neat, while the general growth of the plant is close but graceful.

In a good season it would ripen seeds abundantly, but we fear the rainy autumn of last year has prevented it for this time.

In habit the species agrees with the section called Ephemerum, but its indehiscent fruit, bursting irregularly round the base, is at variance with all the sections of the genus.

This is easily cultivated in any good garden soil, flowering during the months of July, August, September, and October. It is increased by seeds, but the seedlings will not flower before the second season ; also by dividing the old plants in the autumn. Its seeds were said to have been collected in Cashmere.

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CLERODĒNDRŌN splēndēns.

Scarlet Glory-tree.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. VERBENACEÆ.
CLERODENDRON. *Supra vol.* 5. *fol.* 406.

C. *splendens;* glabrum, foliis oblongis undulatis acutis basi subcordatis, paniculis terminalibus corymbosis, calycibus quinquedentatis immutatis, corollæ laciniis oblongis subæqualibus planis tubo brevioribus, staminibus rectis stylo multò longioribus, stigmate bidentato.

C. splendens. *George Don in Jamieson's Journal, vol.* xi. *p.* 349.

Of the many beautiful climbing plants inhabiting the woods of Sierra Leone, and of which so few are yet in cultivation, this is one of the best. Its foliage is of a deep rich green, and the flowers of a colour not inferior to that of Euphorbia splendens. It will be a stove plant, but one of the handsomest in the country. It has flowered with Mr. Knight, at his Nursery in the King's Road, where it had been sent by Mr. Whitfield, a most zealous and enterprising collector. This gentleman has favoured me with the following account of it.

"Late in the month of December, 1838, my servant, John Richards, brought to me a bunch of the flowers of the Clerodendron splendens, and afterwards took me to the spot where he found it growing wild, when I took up the root of it after much labour, as the plant was growing in a very stiff gravelly soil. Upon further search I found several others growing in a stiff loam that appeared to me to be in its virgin state; at a subsequent period I proceeded to the same neighbourhood to obtain more plants, but I was not successful. Early in February, in 1839, I rambled, when practicable, along the south-west district of Sierra Leone, where I found it growing in greater plenty and of various colours, viz.

crimson, brick-dust red, orange and bicolor (crimson and white); the latter plant seemed to me to be more luxuriant where the soil had been broken by the liberated Africans for the purpose of cultivating the Manioc; the other varieties become scarce where the soil had been disturbed, but in every instance, except the first plant, I found it growing in what I consider a strong loam, impregnated (from its colour and aptitude to stain linen) with a large portion of carbonate of iron.

"The plant Mr. Knight has flowered, being scarlet, makes five distinct colours; it was brought by me from Sierra Leone in May, 1840, but I had previously sent to the Duke of Bedford all the varieties I have named, and I had hoped that they would have flowered long before Mr. Knight's, as they had had twelve months advantage, having been sent to His Grace in March, 1839, and again in July of the same year.

"When the root is shaded from the sun by the underwood, this C. splendens attains the height of 10 to 12 feet, but if it is exposed to the sun it seldom grows more than three feet."

The varieties here spoken of are probably distinct species, of which several from the same part of Africa are known to Botanists.

Judging from the general character of the Sierra Leone climate, it may be expected that this species will require considerable bottom heat, a hot moist atmosphere while growing, and at least four months rest in a drier atmosphere after its growth is completed.

Upon looking over the characters assigned to the genus Clerodendron, I have not found any mention of the singular structure of its ovary, which in this, and some other species, is as is represented at fig. 1. of the accompanying plate. That is to say, it is one-celled, with two bifid parietal placentæ, which project into the cavity, having two ovules on each edge, and touching in the middle. At the same time there is an imperfect partition on each side, slightly projecting into the cavity opposite the commissure of these placentæ. The learned reader need not be reminded of the close approach, thus exhibited, to the structure of Martynia.

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ANEMŌNĒ rivulăris.

The Rill Anemone.

POLYANDRIA *POLYGYNIA.*

Nat. ord. RANUNCULACEÆ.

ANEMONE. *Botanical Register, vol.* 3, *fol.* 200.

Sect. ANEMONOSPERMOS.

Caryopsides ecaudatæ subcompressæ. Pedicelli ex involucro plures, 1 *aphyllus* 1-*florus,* 2-3 *involucellum bifolium gerentes.* DeCand. Prodr. 1. 21.

A. *rivularis;* foliis subvillosis 3-partitis, foliolis ovatis trifidis, lobulis incisis acutè dentatis, involucralibus sessilibus 3-partitis, lobis lanceolatis serratis subpinnatifidis, ovariis glaberrimis, fructu lineari acuminato mucronato.

A. rivularis. *Buchanan in DC. syst.* 1. 211. *DC. Prodr.* 1. 21. *Wall. cat.* 4692. *Royle Illustr. p.* 52.

A hardy perennial, growing about eighteen inches high, and requiring the same treatment as Anemone vitifolia, like which it suffers in winter more from moisture than from cold. It is easily increased by seeds, or by dividing the old plants; but the seedlings will not blossom before the second season. It flowers freely from June to August. It was first raised from seeds received from Dr. Falconer of Saharunpur, but it is frequently now to be found in collections of seeds from the North of India.

By some error this has acquired in the gardens the name of *A. longiscapa,* a species distributed by Dr. Wallich, under the number 4691, but not yet introduced into systematical works. That species is clearly distinguished by its kidney-shaped 5-lobed leaves, having very shaggy footstalks, and its umbellate flowers; it in fact belongs to another section called Omalocarpus by DeCandolle, and allied to *A. narcissiflora.* The following character will serve to distinguish it.

A. *longiscapa* (Wall Cat. no. 4691.); foliis junioribus villosis adultis glabris radicalibus longe petiolatis reniformibus 5-lobis, laciniis 3-lobis lobulis grossè serratis, petiolis villosissimis, involucralibus conformibus magis incisis, floribus umbellatis. *India Septentrionalis.*

The species now before us occurs in various parts of the North of India ; Dr. Royle describes it as common in Mussooree and elsewhere, in the vicinity of water. It has no inconsiderable resemblance to the North American A. pennsylvanica.

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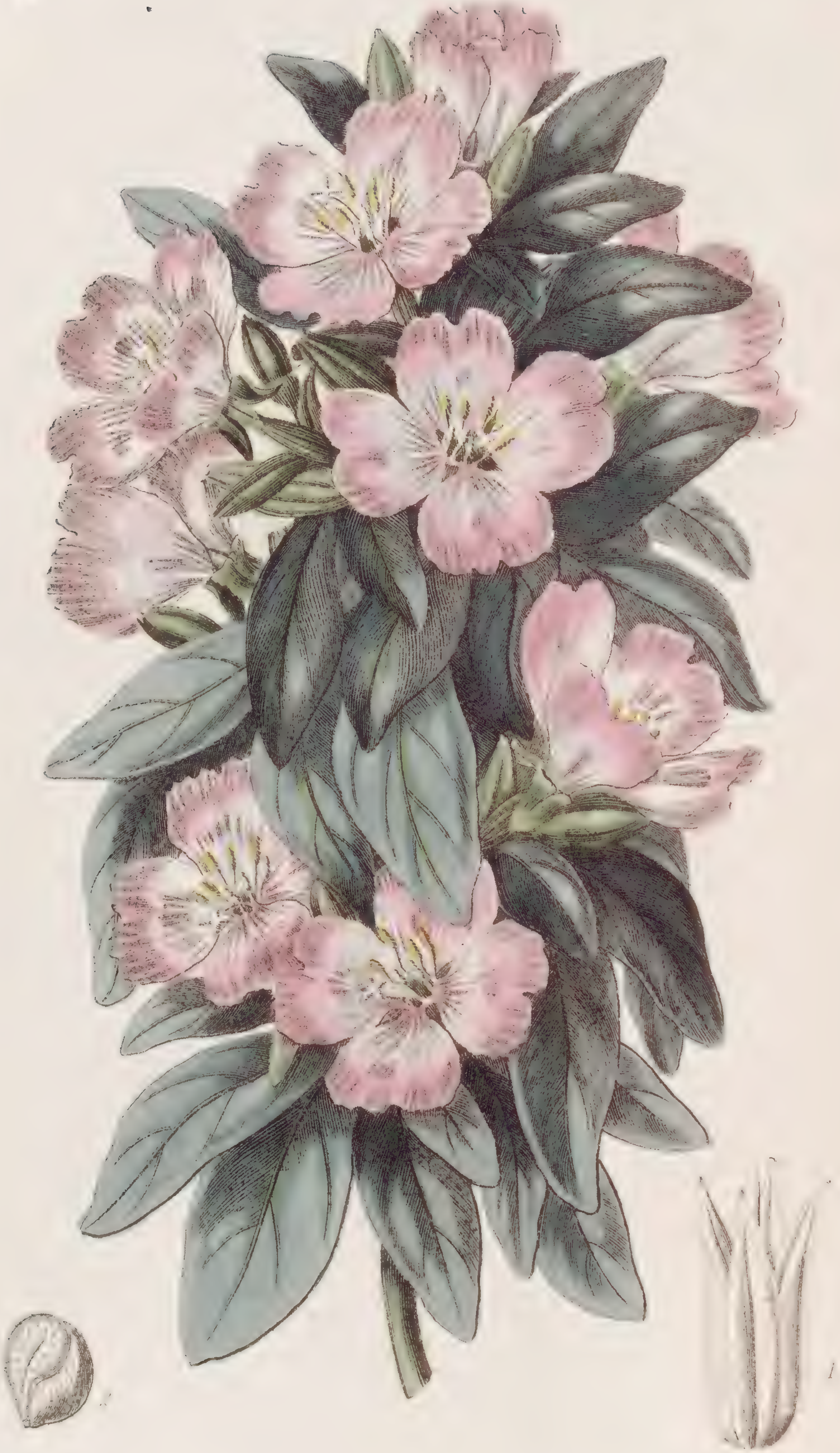

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GODĔTĬĂ albēscēns.

Whitish Godetia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRACEÆ.
GODETIA. Supra vol. 22. *fol.* 1829.

G. *albescens;* caule annuo lignoso, ramis brevissimis congestis, foliis albido-glaucis lanceolatis integerrimis glabris, floribus sessilibus densissimè inter folia superiora aggregatis, calycis tubo infundibulari laciniis æquali, petalis obcordatis calyce duplò longioribus, stigmatis lobis ovatis virescentibus, fructu oblongo 8-sulcato acuminato tereti villoso, seminibus subrotundis scabris. *Botanical Register,* 1841, *misc. no.* 131. *quibusdam mutatis.*

A new hardy annual, not very handsome, but forming an agreeable variety, when grown among species of a more spreading habit. Like all the rest of the genus, which seems to retain the characters, by which it is known from Œnothera, it is a native of America, having been obtained from the Columbia river for the Horticultural Society, by the late Mr. Moreton Dyer. Its stiff close mode of growth brings it near Œnothera densiflora, from which, however, it is very different in other respects.

The species belongs to that section in Gray and Torrey's Flora of North America, which comprehends G. viminea, and in some circumstances it approaches their G. Arnottii, but that species is described with taper-pointed leaves, spotted flowers, a style longer than the stamens, and glabrous capsules; the flowers are moreover said to be as large as in G. Lindleyi.

Fig. 1 represents a seed vessel split into four valves, and fig. 2, a seed.

In cultivation this plant grows about a foot and half high, and requires the same treatment as other hardy annuals. It may be sown in the open border in either autumn or spring, in some place where it is not exposed to the wind; because its roots are scarcely able to keep the heavy stem erect, if the latter is much blown about.

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BABINGTŌNĬĂ Camphorosmæ.

Camphorwort Babingtonia.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Myrtaceæ, § Leptospermeæ.

BABINGTONIA. Flores cymoso-racemosi terminales. *Calyx* tubo turbinato, cum ovario connato; limbo supero quinquefido persistente. *Corollæ* petala 5, calycis fauci inserta, ejusdem laciniis alterna, sessilia, orbiculata. *Stamina* 15, ternatim sepalis opposita, iisdem breviora; *filamenta* filiformia, libera; *antheræ* didymæ, subrotundæ, innatæ, apice poro dehiscentes. *Ovarium* inferum, 3-loculare; placentis liberis ascendentibus multiovulatis. *Stylus* filiformis ex ipsâ placentâ ortus, per ovarii verticis foramen protrusus, obsoletè trilobus. *Capsula* (vertice perforata).——Frutices *Novæ Hollandiæ occidentalis; foliis oppositis nervosis;* floribus *in cymulas racemosas ramos terminantes dispositis.*

Babingtonia Camphorosmæ.
Bæckea Camphorosmæ. *Endlicher in Hugel's Enumeratio, p.* 51. *Botanical Register,* 1841, *misc.* 140.

Among the many curious plants made known to Botanists by the discoveries in the Swan River and adjacent colonies, some of the most interesting occur in the Myrtaceous order, to which a variety and extent have thus been given which could not have been anticipated. We now find in this great natural assemblage every variety of habit, except the herbaceous; tiny shrubs looking like heather, and monstrous trees which form the pillars of the wilderness; aromatic fruits and hard woody seed-vessels; a most complicated organization as in the Pomegranate, and great simplicity of fructification as in the Fringe Myrtles. Individual parts too have their own extensive variations, seeds, placenta, stamens and anthers, calyx, corolla and bracts, even the foliage itself, form a large field of study for the investigator of comparative organization.

The plant before us, in the eye of the gardener, is merely a pretty shrub, rendering the greenhouse gay in autumn and winter; but to the Botanist it presents some most remarkable features. It is not necessary to remind the readers of the Botanical Register that the old doctrine of deriving the placenta, or seed-receptacle, of a plant, exclusively from the carpellary leaves is no longer tenable. The curious paper by Schykoffsky published in our last volume, and the occasional allusions to Schleiden's views of this important question have shewn very clearly that the placenta has, sometimes at least, if not very often, or even always, an independent origin. In this case each placenta rises up from the bottom of the cell in which it stands, and is supported upon a short stalk, not touching the sides of the ovary at any point; when this is compared with what is found in Verticordia, and its allies, we must admit that even in Myrtaceous plants, many of which appear to conform best to the old theory, the placenta has really an independent formation.

But a far more curious fact presents itself upon a closer examination of the ovary. *The style itself is a direct prolongation of the placenta, and does not even touch the carpels, but is protruded through a hole in the vertex of the ovary.* Fig. 1. shews this, and there is no doubt about the fact. So that here there is overset another branch of theory, which declares that the style is an extension and attenuation, and convolution of the apex of the carpellary leaf; that it is often of that nature is certain; that it is not always so is proved by the case before us. At this important fact we feel no surprise; on the contrary, we have long searched for such an instance in the confident expectation of finding it. If our readers will refer to tab. 9. of the volume of the Botanical Register for 1840, they will see this subject distinctly adverted to. At that place is described, and at tab. 8. fig. 3. represented, the case of the genus Impatiens, in which it is suggested that the style of that genus is made up of two entirely different parts, viz. an extension of the carpellary leaves, and a prolongation of the placenta, which forms the stigma and upper part of the style. Allusion was also made to the imperfect cup that surrounds the stigma of Rhododendron, first mentioned we believe by Mr. Bennett, but long familiar to us, and to the indusium of Goodeniaceæ, as other cases, in which the distinction between the carpellary and placentary parts of the style could be distinctly seen. To this we might have added Geraniaceæ, in which the carpellary part of the style hardens and rolls up, eventually leaving the prolongation of the placenta as a distinct beak. We believe ourselves now justified in stating that in numerous cases the style is formed by the matter of the placenta. How far the structure that obtains in Babingtonia may be general in Myrtaceæ we have not leisure to enquire; it certainly exists in Bæckea, and probably in Callistemon also.

The next point which requires explanation, is our reason for regarding this plant as a genus distinct from Bæckea. The most simple way of justifying the measure is to place before the reader a copy of the character of Bæckea properly so called. In Endlicher's Genera Plantarum it is given thus:—

> BÆCKEA. *Linn.* *Flores* axillares, sessiles v. pedunculati. *Calyx* tubo turbinato, cum ovario connato, limbo supero v. semisupero, quinquefido, persistente. *Corollæ* petala 5, calycis fauci inserta, ejusdem laciniis alterna, breviter unguiculata, orbiculata. *Stamina* 5 v. 10, cum petalis inserta, iisdem breviora; *filamenta* filiformi-subulata, libera; *antheræ* biloculares, longitudinaliter dehiscentes. *Ovarium* inferum v. semi-inferum, bi-tri-quinqueloculare, loculis multiovulatis. *Stylus* filiformis; *stigma* capitatum. *Capsula* infera v. semisupera, bi-tri-quinquelocularis, apice loculicidè dehiscens. *Semina* plurima, angulata, testâ crassâ.—Frutices *Novæ Hollandiæ et Asiæ tropicæ;* foliis *oppositis, exstipulatis, sæpissimè acerosis;* floribus *axillaribus, nunc solitariis, sessilibus v. pedunculatis, nunc umbellatis.* Endlicher Genera, 6311.

Now it must be evident that there are two material circumstances in which these plants differ. In the first place, the stamens of Bæckea are equidistant, either alternately opposed to the sepals and petals, or to only one of them. Here, on the contrary, the stamens are collected in threes, opposite the sepals, and are altogether deficient opposite the petals. As a commencement of that grouping of stamens in parcels, which in some Myrtaceous plants is so remarkable, this is a character not to be passed lightly by. In the next place, the anthers are more like those of a Fringe Myrtle than a Bæckea, opening by pores at their apex, and not by slits along their sides; and they are inserted on the filaments, as if the latter were half pushed into their base, instead of rising from the side of the filament; in fact they are a manifest approach to the peculiar form manifest in the Melastomaceous order. We anticipate then no difference of opinion as to the propriety of separating this plant from Bæckea properly so called, that is to say, from Bæckea virgata, the original species, and whatever of the New Hollanders may be found to agree with it.

The distinction of this supposed Bæckea being thus as we trust established, we beg to name it in compliment to Charles Babington, Esq. F.L.S. of St. John's College, Cambridge, a most zealous and skilful Botanist.

It is a greenhouse shrub, very graceful in its habit, and not difficult to cultivate. It does not seem to like a loamy soil, but grows well in rich brown peat and leaf-mould, and flowers freely during the summer from the ends of its pendent branches. Cuttings of the young wood, a little firm at the base, root very soon in sand when covered with a bell-glass in the usual way. It can be propagated any time from spring to autumn.

Mrs. Molloy, a lady to whom we are greatly indebted for seeds from the Vasse River, says, that it grows there in swampy land, resembling our Spiræa frutex (Spiræa hypericoides), that it grows seven or eight feet high, and in summer forms a delightful shade to the traveller crossing the swamps.

It was first flowered by Mrs. Wray of Cheltenham, as we have already stated at no. 140 of the miscellaneous matter for 1841.

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11

AMARȲLLĬS Banksiānă.

The Banksian Amaryllis.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ.
AMARYLLIS. *Supra vol.* 9. *fol.* 714.

A. *Banksiana;* foliis erectis obtusis glaucescentibus scapo multifloro brevioribus, umbellâ divaricatâ, pedunculis gracilibus floribus triplò longioribus, perianthio atroroseo.
A. grandiflora, *var.* 2. Banksiana. *Herbert Amaryll. p.* 279. *t.* 32. *f.* 2.

For the inspection of this beautiful plant I am indebted to J. H. Slater, Esq., of Newick Park, near Uckfield, who imported it from the Cape. If the name quoted from Mr. Herbert is correct, the species must have been introduced many years ago, for there is a leaf and a flower of it in the Banksian herbarium from the Kew Gardens. It is certainly very near the A. grandiflora, figured at t. 1335 of this work, but the shorter peduncles seem to distinguish it satisfactorily, independently of the different colour and expansion of the flowers. It is, however, to be observed, that in our figure the inflorescence is too compact.

Fig. 1. represents a vertical section of one cell of the ovary, and fig. 2. a transverse section of the whole ovary, showing, what is not uncommon in the Amaryllidaceous order, that the dissepiments merely touch each other in the axis, without actually uniting.

It is a greenhouse plant, and grows well in a rich free soil consisting chiefly of sandy loam. The principal points to be attended to in its cultivation are to keep it in a vigorous healthy state while growing, by placing it in a light situation, and giving it plenty of water, and when the leaves die off to keep it warm and dry. It flowers in the autumn, and is multiplied by off-sets, or by seeds, when they can be ripened.

We extract from Mr. Herbert's work on the Amaryllidaceous order the following observations upon the culture of such plants as this.

" I believe that the very large imported bulbs of this plant and B. multiflora may be one hundred years old. As they sprout but once a year, nothing can be done to accelerate their growth, beyond keeping them in a healthy and vigorous state: for which purpose the bulb must be kept *under ground*, with the neck perhaps above ground; but of that I entertain great doubts. If the whole bulb is exposed, it imbibes moisture from the atmosphere in the season of rest, which becomes fatal to it, and I have found the seedlings of which the neck has never been raised above ground in the safest state. A rich light loam and abundance of water in winter, perfect rest and dry heat in summer, are necessary.

" I lost my bulb of A. grandiflora very soon, and I fear all that were imported at the same time have been also lost, in consequence of the dangerous practice of keeping the bulb above ground."

2
1

CIRRHOPĔTĂLŬM Medūsǣ.

The Medusa's-head Orchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Malaxeæ.
CIRRHOPETALUM. Botanical Register, 1838, *t.* 11.

C. *Medusæ;* pseudobulbis ovatis tetragonis, folio oblongo convexo emarginato, vaginis scapi oblongis ventricosis supremo pedunculo longiore, floribus densè capitatis, sepalo supremo acuminato inferioribus longissimis pendulis, petalis triangularibus acuminatis, labello ovato acuminato bicarinato, columnæ auriculis acutis.

This most singular plant is a native of Sincapore, whence it was obtained by Messrs. Loddiges. In some respects it resembles C. vaginatum, but is a much larger plant, and very different in the form of its flowers, as will be apparent upon comparing the preceding character with our amended one of C. vaginatum given below. Certainly if ever there was a Medusa this must be the prototype, before her Gorgonship's beautiful tresses were changed into serpents; nor are wanting the scales with which her form was safely guarded. We believe that this young lady was carried out of harms way into the ocean of India by Neptune, and that all they tell us about Perseus having cruelly killed her is a fable; for is not here the proof?

Fig. 1. represents the column, petals, and labellum; 2. is the labellum separate.

To grow it well the temperature and moisture of the Orchidaceous stove is required. It may be fixed to a wooden block, and suspended from the rafters, but if treated in this manner a quantity of sphagnum, or turfy peat, ought to be packed round the stem to retain moisture. It ought never to be kept too dry, but of course it requires more water when growing than when resting.

The *Cirrhopetalum vaginatum* was taken up, in the Genera and Species of Orchidaceous plants, from specimens in Dr. Wallich's Indian herbarium; they were, however, not very good, and the inspection of living plants, in flower with Messrs. Loddiges, enables me to amend, as follows, the character formerly given of that species.

C. *vaginatum*; pseudobulbis pyramidatis truncatis, folio oblongo convexo emarginato, vaginis scapi oblongis ventricosis distantibus sepalo supremo ovato inferioribusque longissimis pendulis ciliatis, petalis oblongis ciliatis, labello oblongo bicarinato, columnæ auriculis setaceis.

From this it appears that C. vaginatum differs from C. Medusæ in its flowers being ciliated, the petals oblong, not triangular and acuminate, and in the distant sheaths of the scape; to which may be added that its flowers are not speckled with pink as in C. Medusæ.

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13

MAXILLĀRĬĂ cruēntă.

Blood-stained Maxillaria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.

MAXILLARIA. Botanical Register, vol. 11. *fol.* 897.

M. *cruenta;* pseudobulbis compressis rugosis, foliis pluribus oblongis membranaceis, pedunculis radicalibus unifloris (rarò bifloris), vaginis distantibus obtusis cucullatis, sepalis ovatis obtusis lateralibus basi parùm productis, petalis minoribus conformibus, labello sepalis duplò breviore concavo trilobo laciniis rotundatis intermediâ crispâ pubescente: tuberculo parvo plano, columnâ pubescente.

M. Skinneri, *hortorum nec Batemanni.*

It has been already stated (p. 11) that the plant current in our gardens under the title of M. Skinneri is not the species to which Mr. Bateman intended to apply that name, but one more nearly allied to M. aromatica. The accompanying figure represents the latter.

It was found by Mr. Skinner in Guatemala, and sent to his friends as a large variety of M. aromatica, to which it certainly bears much resemblance. The following circumstances however will readily distinguish it. The leaves are broader; the flowers are four times as large when in health; the lip has quite a different form, with a deep crimson blotch at its base, and is not half the length of the sepals; the middle lobe is rounded not unguiculate, and only a small tubercle in the middle instead of the large concave appendage that occurs in M. aromatica. No doubt then can be entertained of the specific difference between these plants, which may be stated as follows for M. aromatica.

M. *aromatica* (Hooker Ex. Flo. t. 219. Gen. & Sp. Orch. no. 20. Bot. Reg. t. 1871. *Colax aromaticus,* Spreng.); pseudobulbis compressis rugosis, foliis pluribus oblongo-lanceolatis membranaceis, pedunculis radicalibus unifloris erectis, vaginis distantibus obtusis cucullatis; sepalis ovato-

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oblongis petalisque conformibus acutis, labelli semicylindracei sepalis æqualis laciniis lateralibus acuminatis obtusis intermediâ cuneatâ apice serrulatâ; appendice magnâ concavâ carnosâ truncatâ, columnâ facie villosâ——*Mexico.*——The flowers are yellowish-orange colour, scarcely spotted even inside the lip, which has two rows of hairs along its inner face.

In the annexed plate, Fig. 1. represents the lip spread open; 2. is the column, which is hairy, although the engraver has neglected to shew the hairs.

As may be expected, the habits of this very fine species are the same as those of *M. aromatica,* and it requires the same treatment. It does very well in the cool orchidaceous stove, where plants from Mexico and Guatemala are now generally grown, and wants a season of dryness after it has made its pseudo-bulbs, but plenty of water during its growth. The flowering time is winter and spring.

The finest specimen I have yet seen flowered with Sir C. Lemon at Carclew, where one of the flower-stalks bore two blossoms, a very unusual circumstance among the species with this habit.

14
1

CYNOGLŌSSŪM anchusoīdĕs.

Bugloss-flowered Houndstongue.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Boraginaceæ.

CYNOGLOSSUM. Botanical Register, vol. 1841. *fol.* 27.

C. *anchusoides;* albopubescens, foliis radicalibus lanceolatis longe petiolatis caulinis lineari-lanceolatis sessilibus, paniculâ laxâ ramis elongatis apice nudiusculis, sepalis linearibus obtusis tomentosis tubo corollæ æqualibus, limbo corollæ tubo æquali, limbo campanulato, fornicibus elongatis apice obtusè trilobis, staminibus fornicibus æqualibus, achæniis lappaceis disco muricatis.

A hardy perennial, growing well in rich garden soil, and flowering freely in July and August. It is easily increased from seeds sown in the ordinary way, but the plants will not flower before the second season.

It was raised from seeds received from the East India Company, said to have been collected either in Cashmere or Thibet, and presented to the Horticultural Society, in whose garden our drawing was made in May, 1841.

In the general appearance of the flowers this plant has quite the appearance of an Anchusa; but its fruit is that of Cynoglossum; surrounded with numerous stiff barbed spines, and merely rough with hard sharp points on the disk. In this respect they are however variable, some of the nuts being merely muricated.

The valves which occupy the orifice of the tube of the corolla (fig. 1.) are unusually long, and distinctly 3-lobed at the point; they hide the stamens which stand just within them, and are completely clear of the tube.

We cannot recommend this species as very ornamental; but it is interesting to those who cultivate rare hardy herbaceous plants.

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STYLĪDĬŪM Brunoniānūm.

Brown's Stylewort.

GYNANDRIA *DIANDRIA.*

Nat. ord. Stylidiaceæ.
STYLIDIUM. *Botanical Register, vol.* 1. *fol.* 90.

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§ Tolypangium. *Capsulæ ventricosæ ovatæ sphæricæ aut oblongæ, nec lineares.* Endl.

S. *Brunonianum;* glaucum, foliis radicalibus rosulatis lineari-spathulatis acutis caulinis verticillatis; verticillis 2-4, racemo laxo subverticillato, ovario nudiusculo, calyce æqualiter 5-partito laciniis linearibus obtusiusculis, corollæ laciniis obovatis duabus minoribus, fauce glandulis capitatis coronatâ, labello lineari acuminato basi tuberculato.

S. Brunonianum. *Benth. in Hugel enum. p.* 72. *DeCand. prodr.* 7. 334.

One of the prettiest of the singular Styleworts of Swan River, remarkable for the fine bloom that overspreads all its parts, and for the whorls of leaves which surround its flower-stem. The accompanying figure, made last May in the garden of the Horticultural Society, represents it as it appears in cultivation; but in its wild state it is somewhat different after the first year. It would seem that the flowering stem perishes and leaves nothing behind except the tuft of radical leaves and the living centre round which they are disposed. The second season these leaves die, the central stem lengthening, clothing itself with small pointed scales, and when it has grown an inch or so stopping to form another rosette of ordinary leaves, from whose centre spring other flower-stems; the third and following years this is repeated, so that at last the winter state of the plant consists of a jointed scaly stem, each of whose joints is the result of one year's growth. Nothing of this has yet been seen in gardens, but the first stage of onward growth ought to be completed this spring.

The ovary of this, and perhaps other species, is sometimes glandular and sometimes quite smooth.

Fig. 1. is a magnified view of an entire flower; 2. shows the base of the corolla, the glands which crown its orifice, and the lip with a tubercle at its base, the calyx being removed.

It is one of the very neatest of little greenhouse perennials, and requires a light sandy soil, composed principally of peat, with only a small portion of loam. It must be kept in winter on the shelf of a cool greenhouse, where there is plenty of light and air, in small pots, and rather dry; but it should be supplied with abundance of moisture during the summer. It is easily increased from seeds.

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GESNĒRĂ zebrīnă.

The Zebra Gesnera.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.

GESNERA. Botanical Register, vol. 4. *fol.* 343.

G. *zebrina;* molliter tomentosa, herbacea, foliis oppositis subrotundis cordatis subundulatis secus costas discoloribus, racemo multifloro subcorymboso pedunculis inferioribus quam flores duplò longioribus, bracteis linearibus involutis, corollis ventricosis bilabiatis laciniis subæqualibus rotundatis erectis, disco annulari 5-dentato.

G. zebrina. *Paxton's Magazine of Botany, vol.* 8. *no.* 96.

Whether in leaf or flower this is a plant of striking beauty. Its leaves are soft with down, broad and beautifully stained with purple in the direction of the principal ribs, so as to have the banded appearance which has given rise to the name. The flowers, scarcely less than an inch and half long, hang gracefully at the end of long slender stalks, and are of the richest scarlet and yellow, variegated with crimson spots.

Nothing in the foreign books within my reach is to be found which at all answers to the peculiar characters of the species, whose name, introduced from the continent, may well be retained.

Although no doubt an inhabitant of the hotter parts of South America, yet there seems to be no evidence of its precise locality. According to Mr. Paxton it was introduced by Messrs. Low and Co. of Clapton, from the Botanic Garden of Ghent; the specimen here figured was communicated by Messrs. Veitch and Son, of Exeter.

Little is yet known of its habits. It does well in a damp stove when kept rather cooler than those houses generally are, and produces a succession of flowers for many months in summer and autumn. It is easily multiplied by cuttings, and grows well in any rich free soil. During the winter months, after it has finished its growth, it must not be removed to a cool damp place, as is sometimes done with these plants, but should be kept warm and dry. This will be a natural rest, and by giving a liberal supply of water when signs of growth re-appear, it will soon make vigorous shoots.

17

CYPRIPĔDĬŪM barbātūm.

Bearded Lady's Slipper.

GYNANDRIA *DIANDRIA.*

Nat. ord. ORCHĬDACEÆ, § CYPRIPEDEÆ.

CYPRIPEDIUM. *Botanical Register, Vol.* 10. *fol.* 788.

SECT. V. Acaulia ; *foliis omnibus radicalibus.* Gen. & Sp. Orch. 531.

C. *barbatum ;* acaule, foliis coriaceis acutis canaliculatis maculatis, scapo pubescente, sepalo dorsali cuspidato obtuso ciliato margine revoluto, petalis lineari-oblongis subundulatis fimbriatis margine superiore verrucoso, stamine sterili lunato pubescente.—*Bot. Reg.* 1841, *misc. no.* 110.

Folia *coriacea, oblonga, acuta, canaliculata, rigida, viridi intensiore interruptè vittata.* Scapus *pubescens, uniflorus, purpurascens, foliis longior.* Bractea *ovata, cucullata, acuta, ovario multò brevior.* Flores *erecti.* Sepalum dorsale *album, purpureo viridique lineatum, subrotundum, ciliatum, marginibus reflexis;* lateralia *in unum parvum obtusum connata.* Petala *oblonga, marginibus subparallelis, apice atro-purpurea, basi viridia, ciliata, margine superiore verrucoso, verrucis atropurpureis vernicatis piliferis.* Labellum *fusco-purpureum, obtusum, glabrum, petalis longitudine æquale.* Anthera *sterilis lunata, vertice verrucosa, angulis acuminatis, margine posteriore emarginata.*

There is something in the habit of the Indian Lady's Slippers so peculiar, that it was for a long time expected that they would be found to possess characters sufficient to separate them altogether from their associates. The fullest examination however shews this expectation to be fallacious, and that no peculiarity of organization exists among them. In fact, the genus itself has been found to vary so much in the aspect of its species, that the common European and North American kinds convey no idea of its nature. In addition to the Indian forms, of which this may be regarded as a type, the hotter parts of America have furnished, on the one hand, the singular C. Lindleyanum, a hairy rufous plant with panicled flowers, and the scarcely less curious C. palmifolium, which bears the aspect of a Sobralia, and has its flowers in long racemes.

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The species now represented is a native of the Straits of Malacca, where Cuming found it on Mount Ophir. Messrs. Loddiges are, as far as I am aware, the only persons who have flowered it. The purple hairy shining warts which border the upper edge of its petals distinguish it immediately from C. venustum and purpuratum, which are most like it.

Fig. 1. in the plate represents the head of the sterile stamen.

Persons who are unskilful in the cultivation of Orchidaceous plants, manage the more common kinds of Cypripedium extremely well, and therefore it is only necessary to say that this species succeeds perfectly with the same treatment as C. venustum or insigne. The cultivator should not go to extremes with resting these plants, and should water with caution when they are just beginning to grow, as the young shoots are apt to damp off. They are terrestrial in their habits, and do best when grown in pots.

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SAUSSŪRĔĂ pulchĕllă.

Pretty Saussurea.

SYNGENESIA *POLYGAMIA ÆQUALIS.*

Nat. ord. Compositæ-Cynareæ, § Carlineæ, *DeCand. Prodr.* 6. 531.

SAUSSUREA, DC. *Capitulum* homogamum multiflorum. *Invol.* multiseriale sæpius imbricatum, foliis sæpius exappendiculatis aut (in Theodorea) appendice auctis. *Recept.* planum fimbrillatum paleaceumve paleis liberis aut subcohærentibus persistentibus, rarissime nudum. *Flosc.* omnes hermaph. æquales. *Cor.* 5-fidæ, tubo gracili, fauce ventricosa. *Antheræ* apice in appendices acutas longas desinentes, basi bisetæ, setis ciliatis aut (in Lagurostemone) villoso-lanatis. *Filam.* glabra. *Stigmata* longa apice divergentia cum stylo continua nec sensim articulata. *Ovarium* glabrum. *Pappus* sæpius duplex, exterior paleis subfiliformibus scabris sæpe persistentibus constans, raro exter-deficiente nullus, interior paleis longe plumosis basi in annulum deciduum subconcretis.——Herbæ *Europææ aut pleræque Sibiricæ et unica Indica, nunc Serratulas nunc Jaceas Leuzeasve habitu æmulantes.* Folia *alterna integra aut in iisdem speciebus incisa aut pinnatifida.* Capitula *sæpius in corymbos ramos caulesve terminantes disposita.* Cor. *purpureæ aut atro-violaceæ.*—DeCand. l. c.

Sect. III. Theodorea. Involucri squamæ apice appendiculatæ, antherarum caudæ ciliatæ nec lanatæ. *DC. l. c.*

S. pulchella; foliis scabriusculis pinnatifidis, laciniis linearibus acutis subdentatis, caulinis subdecurrentibus, summis indivisis, capitulis corymbosis globosis, involucri squamis extimis parce tomentosis lanceolatis acuminatis, mediis et intimis in appendicem scariosam lacero-dentatam coloratam erectam desinentibus.—*DeCand. l. c.*

Heterotrichum pulchellum. *Fisch. mem. mosq.* 3. 71.
Theodorea pulchella. *Cassin. dict.* 53. *p.* 465.
Serratula pulchella. *Bot. Mag. t.* 2589.
S. dissecta. *Ledeb. fl. alb.* 4. 19.

To those who cultivate hardy herbaceous plants this is one of some interest, resembling a Liatris in colour and general appearance. It forms part of a genus abounding in species of a neat habit, and with flowers of various shades of purple, seldom exceeding a foot or two in height, and blossoming during the autumn.

Mountainous pastures beyond lake Baikal, and moist meadows in Davuria, near the town of Nertschinsk, are the stations in which it has been found.

In cultivation it is a hardy pretty perennial, requiring the same treatment as the more delicate species of Centaurea or Rudbeckia, and flowering freely in the open border during the months of August and September. When planted in the open border it is generally short-lived, owing to its blooming excessively, and therefore it is better to raise it from seeds frequently, in order to keep up a succession of plants.

The accompanying figure was made in the garden of the Horticultural Society, where it was raised from seeds received from Dr. Fischer of St. Petersburgh.

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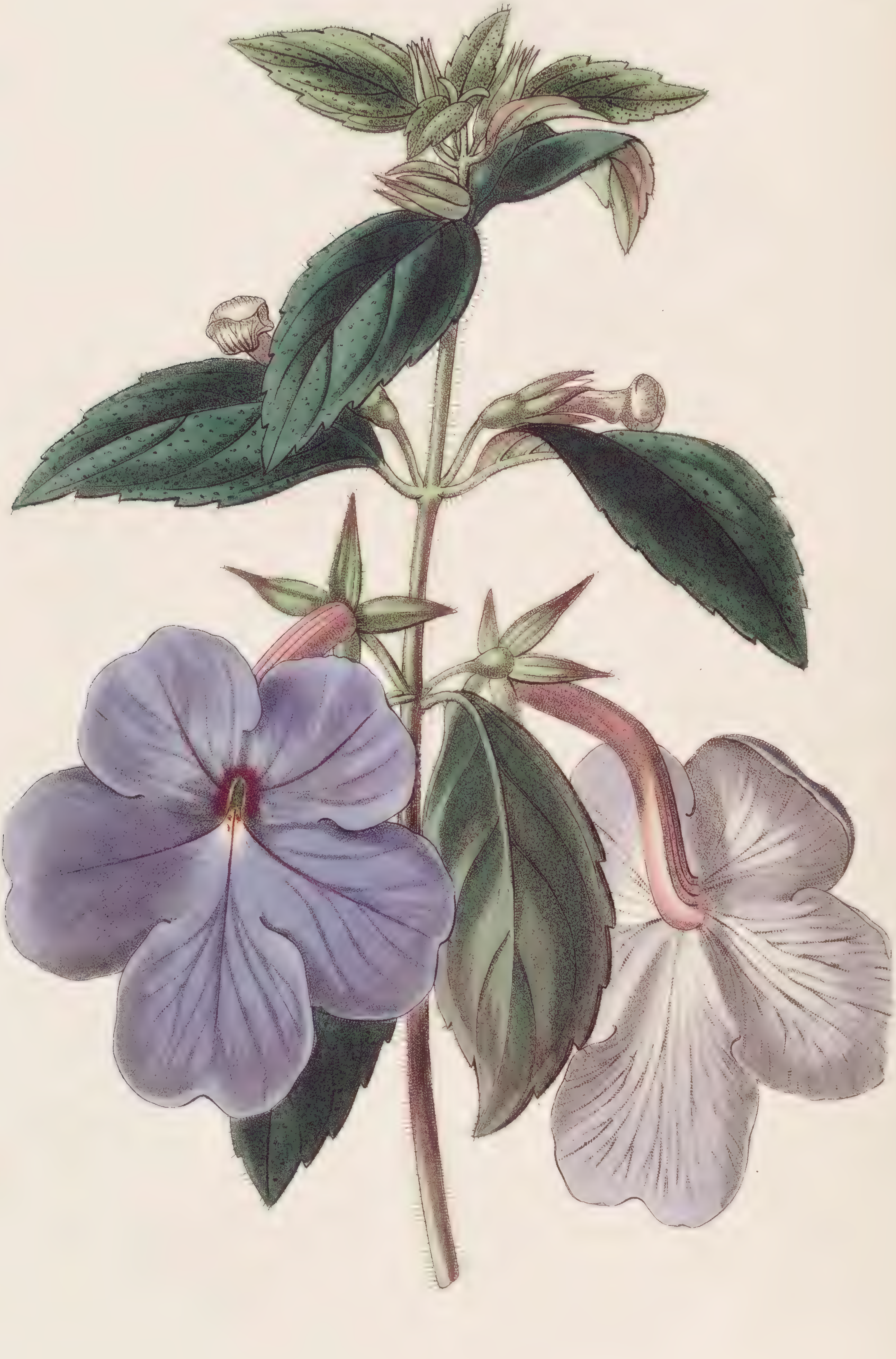

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ACHIMĒNĒS longiflōră.

Long-flowered Achimenes.

DIDYNAMIA *ANGIOSPERMIA*.

Nat. ord. GESNERACEÆ.
ACHIMENES. Botanical Register, 1841, *t*. 65.

A. *longiflora ;* foliis 3-4-natim verticillatis ovatis oblongisve grossè serratis cauleque hirsutis, pedicellis unifloris calyce brevioribus, calycis laciniis lanceolatis erectis corollæ tubo 4-plò brevioribus, corollæ limbo amplo patente. *Benth. Pl. Hartw. p.* 89. *no.* 604.
A. longiflora. *DeCand. Prodr.* 7. 536. *Fortune in Hort. Trans. vol.* 2. *new series, p.* 508. *t.* 14.

No individual, whether potentate or commoner, no government, no association of individuals in any country, ever embellished their native land in the same number of years, with such a multitude of rare and beautiful plants as the Horticultural Society of London has brought into England, either through their correspondents, or by the means of their collectors ; among whom the names of Forbes, Parkes, Douglas, and Hartweg stand pre-eminent. The annuals, the perennials, the hardy deciduous shrubs, the evergreens, the creeping plants, the greenhouse and stove plants now in cultivation, have principally sprung from the rich mine in the Society's Garden ; and now, after twenty years importation of novelties, here is one which yields to nothing except the Wistaria (Glycine) sinensis. More beautiful than the gayest of our stove herbaceous plants, as easy to cultivate as the commonest of perennials, more prodigal of flowers than the finest of the Gloxinias, ever blooming, except during the few months when it sinks into its winter's rest, this Achimenes longiflora is an invaluable gift by the Society to every one who has a warm greenhouse. The following excellent account of it by Mr. Fortune, published in the Transactions of the

Horticultural Society, gives full information concerning its history and treatment.

"Mr. Hartweg found it growing wild in the ravines of Guatemala, and sent its roots home last spring along with several other new Gesneraceous and Orchidaceous plants. The roots arrived in very good order, owing to their having been packed in dry loam, and sent home at that period of the year when the plant is naturally in a resting state. In packing and sending home plants of this kind, much of the success depends upon having them gathered and transmitted at the proper season. In this case the roots being gathered after the growing season was past, and at the same time surrounded with dry loam, were as nearly as possible in natural circumstances, during the voyage to England, were only enjoying that period of rest which they would have had in their native country, and, as the event proved, were as ready to start into leaf, and to grow with vigour after their arrival as if they had remained in Guatemala.

"The stems of Achimenes longiflora are of two kinds, some creeping along the ground and amongst the soil, and forming fibrous roots and numerous imbricated buds resembling scaly bulbs; others growing in an upright position from a foot to two feet in height, branching and covered with short spreading hairs. The leaves are hairy, generally opposite and in pairs, but on young shoots are frequently in whorls of three and sometimes alternate; they are oblong, pointed, and serrated, green above, but tinged with red on the under side when fully grown. The flowers grow singly from the axils of the leaves; the peduncles are about half an inch in length; the lobes of the calyx are green, oblong, pointed, and persistent. The tube of the corolla is about two inches long and the border nearly two inches and a half in diameter, 5-lobed and nearly round, having much the outline of a good Heartsease. The tube is of a dark cream colour, the border purple or deep blue changing into lilac. The style and stamens are about the length of the tube, but the latter are apparently much shorter, owing to their being spirally curved at their base.

"It proves to be a plant of the easiest cultivation, flowering in August and continuing covered with large violet flowers for three or four months. It seems to flourish in any free soil, and is more easily propagated than any plant with which I am acquainted. In the spring when it begins to grow, this can be done by separating and potting the scaly bulbs described above; afterwards its creeping stems will strike their roots into the soil and can be taken off perfect plants; and at all times, while the plant is growing, cuttings may be struck in a few days.

"Every one who has a warm greenhouse or cucumber or melon frame to start it in, and enable it to form its flower buds in summer, may have it in full bloom in the common greenhouse or sitting room in autumn. The lovers of drawing-room plants may introduce it there and grow it as easily as they now do the Achimenes coccinea. Those who have sufficient accommodation may produce a fine effect by planting a quantity of the roots in a large flat box, and so forming a bed of flowers, which will contrast beautifully with the green foliage of the surrounding plants.

"After the flowering season is past the stems die off, and the roots require no more care than keeping perfectly dry and free from frost during the winter. When spring comes round and the plant shews signs of growth, it must be re-potted, at the same time removing some of the old soil and dividing the roots, where they seem to be sending up too many young stems for the size of the pot. To the successful cultivators of Achimenes coccinea it will be enough to say, that A. longiflora requires very nearly the same treatment; and those who are not acquainted with that plant may easily manage this by attending to the directions already given."

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Miss Drake del

Pub [illegible] 1842

G. Barclay sc

THŬJĂ filifōrmĭs.

Weeping Arbor Vitæ.

MONŒCIA *POLYANDRIA.*

Nat. ord. Coniferæ.

THUJA, L. *Flores* in diversis ramis monoici. Masc. *Amenta* terminalia, ovoidea, minima. *Stamina* plurima, nuda, axi inserta; filamenta excentricè peltata, laxè imbricata; *antheræ* loculis quatuor, longitudinaliter dehiscentibus, margini inferiori subtus insertis. Fem. *Amenta* terminalia, depressiuscula minima. *Squamæ* quadrifariam imbricatæ, patentes. *Ovula* ad basim squamarum gemina, sessilia, erecta, orthotropa, lagenæformia, apice pertusa. *Strobilus* e squamis imbricatis sub apice retorto-mucronatis, lignescentibus, primùm clausis, mox patulis. *Semina* sub squamis 2, e basi erecta; *testa* ossea *v.* membranacea, utrinque in alam angustam producta. *Embryo* in axi albuminis carnosi antitropus, ejusdem longitudine, cotyledonibus 2, oblongis, radicula cylindrica, supera.——Arbores *sempervirentes, in Asia et America boreali obviæ;* ramis *compressis,* foliis *minimis densè plurifariam imbricatis,* gemmis *nudis.*—Endlicher Genera Plantarum, no. 1790.

T. *filiformis* (Loddiges); ramis pendulis filiformibus teretibus apice tetragonis, foliis acutis patulis, strobilis subrotundis, squamis 4 apice obtusè mucronatis recurvis exterioribus monospermis interioribus effætis, seminibus apteris.

There is a general belief that this rare plant is the same as the species figured by Mr. Lambert, under the name of T. pendula; and accordingly by all writers upon Coniferous plants the two are mixed together. I confess I do not participate in this opinion. It appears that the fruit of T. pendula is four times as large as this, and has six scales instead of four, with scarcely any mucro; while in this there are constantly four scales only, and they have a mucro almost as long as themselves. Now a difference of this kind is too important to be disregarded, and is scarcely to be considered as accidental. I therefore adopt Mr. Loddiges' name of T. filiformis.

It is a beautiful and quite hardy tree, with long slender weeping branches. The finest plant in England, or perhaps in Europe, is in the Arboretum at Kew; it is now eight or ten feet high, and has stood out unprotected for several years, without being injured. The Kew plant is certainly the same species as the one in the Chelsea Botanic Garden, which is there kept in a greenhouse during the winter, which circumstance causes the branches and shoots to be longer and slenderer than those of the Kew plant; but young plants struck from cuttings of each have no perceptible difference. It is surprising that this beautiful and hardy evergreen, so long introduced, has not become more common in collections, and particularly as the plant strikes freely from cuttings of the two or three years old wood, if taken off early in the autumn, and treated like cuttings of other Coniferæ. The Chelsea plant originally belonged to Mr. Loddiges, who gave it to Mr. Lambert, and the latter presented it to the Chelsea Garden. It is very distinct from the Juniperus pendula of some Continental Collections, a plant much of the same habit of growth but with much shorter shoots.

Mr. Loudon says he was informed by Mr. Smith, the Curator of the Botanical Garden at Kew, that the fruit which the plant in that collection bore in 1835 closely resembled a Juniper. We, however, see no such resemblance. The fruit is essentially that of an Arbor Vitæ; the only difference from which consists in the seeds being destitute of a wing: but the Chinese Arbor Vitæ has so slight a wing, that this cannot be regarded of importance.

The accompanying figure was taken in the Garden of the Horticultural Society.

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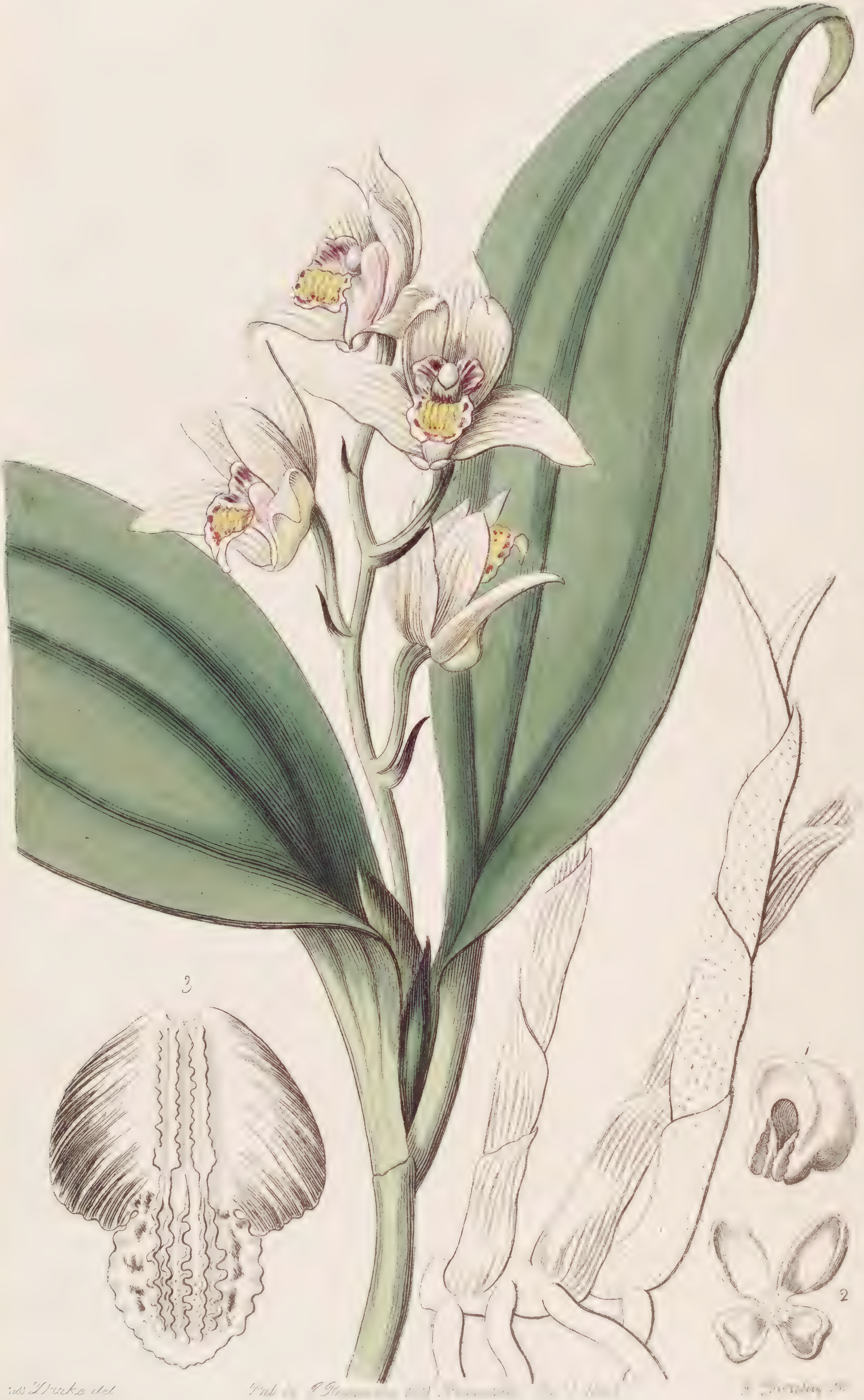

ss Drake del. Pub by J. [illegible] [illegible] sc.

TRICHŌSMĂ suāvĭs.

Sweet-scented Hair Orchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.

TRICHOSMA. *Sepala* patula, æqualia, lateralia basi producta columnæ pedi adnata. *Petala* conformia, erecta. *Labellum* trilobum, cristatum, cucullatum, cum pede columnæ articulatum. *Columna* carnosa, marginata. *Anthera* carnosa, fornicata, bilocularis, valvis verticalibus margine sphacelatis. *Pollinia* 8, quaternatim cohærentia, duobus cuique phalangi minoribus difformibus.——Epiphyta, ebulbis, caule *squamis verrucosis vestito diphyllo.* Folia *subcarnosa, petiolata.* Spica *terminalis, basi spathacea.*

Trichosma suavis.
Cœlogyne coronaria. *Bot. Reg.* 1841. *misc.* 178.

Caules *teretes, angustissimi, diphylli.* Folia *lanceolata, acuminata, undulata, coriacea, obsoletè trinervia, racemi pedunculo basi tantum squamato longiora.* Bracteæ *setaceæ apice sphacelatæ.* Labelli *lobi rotundati lateralibus planis intermedio undulato; cristæ lamellis crispis in lobum intermedium 5, in hypochilium 4 tantum geminatis.* Columna *semiteres, carnosa, marginata.* Anthera *carnosa, anticè projiciens, rotundata, fornicata, bilocularis; valvis verticalibus, margine nigro-sphacelatis.* Pollinia 8, *cereacea, libera, quaternatìm cohærentia; duobus cuique phalangi ovalibus duobus cuneatis emarginatis.*

When this curious plant was sent me from Chatsworth I too hastily referred it to the genus Cœlogyne, misled by a certain similarity of appearance and structure. It is however so very different in several circumstances, that I feel obliged to recognize in it a genus distinct from any hitherto described.

From Cœlogyne it differs in the projecting foot of the wingless column, in the singular fleshy anther, and in the eight pollen-masses. It is more nearly allied to Ceratium, but that genus, according to Blume, has a two-celled anther, four of the pollen-masses very small, a siliquose fruit, and the inflorescence opposite the leaves. Indeed, as it is described as caulescent with sessile lanceolate coriaceous leaves, it seems to be altogether a different kind of plant.

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* From θριξ, hair, and κοσμος, ornament.

This species was brought from the East Indies to Chatsworth by Mr. Gibson, collector to his Grace the Duke of Devonshire, and he has favoured me with the following particulars concerning it.

" It inhabits the Chirra district of the Khoseea and grows upon trees in densely shaded woods near the summit of the hills. It has a strong perfume, somewhat resembling Melic-grass, on which account it is highly esteemed by the wood-cutting natives, who are fond of adorning their hair with its blossoms, and which circumstance gave me a clue to its discovery. It is growing here luxuriantly upon a block of wood, the interior of which from decay has become hollow, and is now filled with dead and living vegetable matter, the latter consisting of the roots and stems of live native Ferns, which are luxuriating with this and other Orchideous plants on the same block of wood. The pseudobulbs are invariably two-leaved, spindle-shaped, gradually tapering towards the top, and covered with dark brown sheathing scales; their length is about six inches. On the young shoots the scales are thick and covered with green warts. The roots are thick and fleshy, and covered with a woolliness like those of old Eria stellata."

Fig. 1. represents the anther in its natural position; 2. one set of pollen-masses; 3. the lip spread open.

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[illegible]

* ECHEVĔRĬĂ rŏsĕă.

Rosy Echeveria.

DECANDRIA *PENTAGYNIA.*

Nat. ord. CRASSULACEÆ.
ECHEVERIA. Botanical Register, vol. 15. *t.* 1247.

E. *rosea;* caulescens, foliis ovalibus erectis acutis nunc terminalibus rosulatis nunc imbricatis, spicâ cylindraceâ densissimâ, bracteis inferioribus coloratis lanceolatis basi angustatis triquetris corollis longioribus, sepalis linearibus acuminatis corollæ campanulatæ æqualibus.

Caulis *carnosus, teres, pedalis, ramosus, lutescens.* Folia *carnosa, ovalia, basi angustata triquetra; in apicibus ramorum sterilium aggregatis viridibus roseo-marginatis, aut secus ramos floridos imbricatis roseis.* Sepala *linearia, acuta, rosea, corollæ campanulatæ* 5*-partitæ æqualia, bracteis linearibus ipsis æqualibus suffulta.* Stamina 10, *corollæ basi inserta.* Carpella 5, *acuminata, squamis nullis hypogynis.*

A Mexican herbaceous plant, imported by Messrs. Lee and Co. of the Vineyard, Hammersmith, and by them presented to the Horticultural Society, in whose garden it flowered in April, 1841.

From E. gibbiflora its short compact inflorescence distinguishes it, as well as the yellow flowers with rose-coloured bracts, which render it very gay. There is indeed but one species yet described in which the corolla is yellow, and that, being the old E. cæspitosa, is a quite different stemless plant.

It is a pretty green-house plant, requiring the same management as Crassulas and succulents of that kind. It does best when grown in a very light house, and the leaves, bracts and flowers acquire that deep colour which is so beautiful in some of the species of this family. It strikes readily either from leaves or from cuttings, and should be grown in a light and well-drained soil.

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* See folio 1247.

M. Drake Pub by J. Ridgway & Sons 169 P. [illegible] 1, 1849 [illegible]

CLĒTHRĂ quercifŏlĭă.

Oak-leaved Clethra.

Nat. ord. ERICACEÆ.

CLETHRA, L. *Calyx* quinque-partitus. *Corolla* hypogyna, profunde quinque-partita, laciniis spathulatis, conniventibus, seorsim deciduis. *Stamina* 10, hypogyna, inclusa; filamenta filiformia, antheræ extrorsæ, demùm introrsum flexæ, cordatæ, apice mucronatæ, dorso muticæ. *Ovarium* triloculare, loculis multiovulatis. *Stylus* filiformis, persistens; *stigma* obsoletè trifidum. *Capsula* calyce cincta, trilocularis, loculicidè trivalvis, valvis medio septiferis, placentis e basi erectis, a columna centrali solutis. *Semina* plurima, *testa* fungosa, laxa.——Frutices *v.* arbores, *in America boreali et tropica crescentes;* foliis *alternis, serratis v. rarius integerrimis;* racemis *terminalibus bracteatis, albidis.*—Endlicher Gen. Pl. no. 4320.

C. *quercifolia;* foliis obovato-lanceolatis acutis denticulatis basi obtusis supra rugosis subtus petiolisque tomentosis junioribus ferrugineis adultis incanis, racemis laxis congesto-paniculatis tomentosis, corollæ lobis dentatis ciliatis calyce longioribus, genitalibus inclusis.

C. tinifolia. *Schlecht. in Linnæa,* 8. 524. *nec Swartzii.*

A handsome evergreen green-house shrub, with deliciously fragrant flowers, inhabiting the neighbourhood of Jalapa in Mexico. Our specimens were supplied by the Honourable and Very Reverend the Dean of Manchester, in March, 1841.

That it is Schlechtendahl's Cl. tinifolia I know from comparing it with authentic specimens from himself.

That it is not C. tinifolia of Swartz I have ascertained from specimens collected in Jamaica by Masson, and now in my herbarium. That plant has lucid, very obtuse, perfectly entire leaves, very much closer racemes than this, smaller flowers, and is the same as Hartweg's No. 488, which Mr. Bentham regards as C. mexicana of DeCandolle. To those plants the name is strictly applicable, for the leaves are very like the Laurestinus; to this it is not at all applicable, for the similarity of the leaves is rather with some Mexican Oak.

It differs from *C. mexicana*, chiefly in its acute leaves, always more or less toothed at the margin, circumstances not occurring in the specimens from Hartweg numbered 341, referred by Mr. Bentham to that species, but which I regard as entirely different from the No. 488 above alluded to; and at variance with the specific character of DeCandolle, with which the No. 341 perfectly agrees. It may however be a mere variety of that species, which was found in the cold districts about Bolanos, while Cl. quercifolia comes from the warmer climate of Jalapa.

It is in some respects very like *Cl. Brasiliensis*, or at least the supposed variety which Loiseleur has called *C. scabra*, but the leaves of that species are much more lanceolate, and the flowers are not a quarter the size, and in dense racemes.

It is not hardier than C. arborea, and requires the same treatment, growing freely if planted in any good garden soil which is rather light. It is easily increased either by layers or seeds.

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Miss Drake del.   Pub by J. Ridgway 169 Piccadilly April 1. 1842   G. Barclay sc

* MĪNĂ lobātă.

Lobe-leaved Mina.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.

MINA, Llave & Lexarza. *Calyx* brevis, nudus. *Corolla* hypocrateriformis, tubo brevi intruso, limbo campanulato pentagono ventricoso margine 5-lobo. *Stamina* inæqualia, tubo inserta, exserta. *Ovarium* 4-loculare; ovulis solitariis; stigma capitatum.—— Herba *Mexicana, subvolubilis;* racemis *furcatis;* floribus *secundis erectis.*

Mina lobata. *La Llave & Lexarza nov. veg. descr.* 1. *p.* 3.

It is not a little singular that this beautiful plant, cultivated by the Mexicans for purposes of decoration, and therefore one would imagine common, should have never reached Europe till last year, when a packet of seeds, presented to the Earl of Burlington by Geo. Frederick Dickson, Esq., produced it in the gardens at Holker. It was afterwards given to the Horticultural Society by his Lordship, but, being an annual, it perished, having only produced two seeds, which we fear were imperfectly ripened. They have been sown, and if it is possible to get them to grow, the species may yet be preserved, and it will doubtless be easily multiplied by cuttings in the early part of the year.

Take away the flowers of this curious plant, and no one would suspect it to be anything more than some common Ipomæa; but remove the leaves, and it loses all appearance of the Convolvulaceous order, so unusual is it among such plants to have racemose flowers, erect, and arranged almost in the scorpioid manner of a Borage, to say nothing of the uncommon form of the corolla, and its peculiar colour, at first rich crimson, but changing through orange to pale yellow as the blossoms unfold.

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* Named after Don Francisco Xavier Mina, a Mexican minister.

Botanists, unacquainted with this plant except from La Llave's good description, have referred it to the genus Quamoclit, with which it doubtless corresponds in many respects, especially in the structure of the ovary and stigma. But in that genus, that is to say in the legitimate species, of which the old Ipomæa Quamoclit must be regarded as the type, the flowers are arranged in the manner common to the majority of the order, and the limb of the corolla is as usual flat when expanded. Here, on the contrary, we have quite a peculiar inflorescence, and the limb of the corolla inflated into an oblong 5-cornered bag, the base of which is so much thrust inwards by the tube as to hide that part from immediate view. Considering what the characters are on which the recognized genera of the Convolvulaceous order are established, it certainly appears to me that this genus Mina must be recognized.

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Miss Drake del.

[illegible] May 1 1842

[illegible]

EPIDENDRUM cinnabarinum.

Cinnabar Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
EPIDENDRUM. Botanical Register, vol. 1. *fol.* 80.
Sect. AMPHIGLOTTIUM, *Lindl. in Hooker's Journ. of Botany,* 3. 81.

E. *cinnabarinum;* (L. p. 106.) foliis distichis oblongis apice sub-recurvis, sepalis petalisque lanceolatis subæqualibus, labello trilobo medio unilamellato basi bituberculato: laciniis lateralibus inciso-laceris intermediâ basi obcuneatâ sub apice constrictâ apice cuneatâ truncatâ angulis acuminatis simplicibus fissisque.

Among those Western Orchidaceous plants which Salisbury called Amphiglottis, but which I regard as a mere section of Epidendrum, there are some species of great beauty, so nearly related to each other that their limits are with difficulty determined. I particularly allude to *E. Schomburgkii* figured at t. 53 of the volume of this work for 1838, this *E. cinnabarinum,* and *E. rhizophorum* of Mr. Bateman, which is no doubt the *E. radicans* of Pavon, badly described from a mutilated specimen. They all have bright scarlet or crimson flowers, a pair of tubercles at the base of the labellum, and a ridged line running from between the tubercles to nearly the apex of the lip. They however differ thus: *E. radicans* has the lateral lobes of the labellum rounded and toothletted only, not lacerated, and it produces coarse pale green roots from its stems; *E. cinnabarinum* has the lateral lobes of the labellum deeply lacerated, while the central lobe is contracted in the middle, and then *suddenly* wedge-shaped, with its angles prolonged into one or two fine teeth; *E. Schomburgkii* has the lateral lobes only toothed, with the centre lobe gradually widened to the point, and there toothletted, without being at all truncate; in the latter, indeed, the lobes of the lip are sometimes confluent!

All these plants are in cultivation; but *E. Schomburgkii* is the only one that has been figured up to the present time. The beautiful specimen now represented was obtained from Pernambuco by Messrs. Loddiges, with whom it flowered in May,

1840. Salzmann, a German collector, originally met with it in sandy thickets near Bahia; and I find it among Martius' plants from the same province, marked "high ground of the Serra de Sincorá, and on rocks near Villa Rica, in the province of Mines, growing four to five feet high."

It ought to be grown in the Orchidaceous house or moist stove. The pots should be well drained; this is very simply done by inverting a small pot in a larger one, and also allows the heat to rise readily to the roots. It grows well in brown turfy peat, and requires a liberal supply of water during the growing season. Its general treatment may be much the same as that of E. elongatum.

Although unwilling to recognize a genus in these Amphiglottia, they certainly form a most natural group. The following is a list of such as I am acquainted with.

[*L.* in all cases signifies Lindley's Genera and Species of Orchidaceous Plants.]

Sect. 1. *Flowers in racemes.*

E. Skinneri, *Bateman in Bot. Reg. t.* 1881.
setiferum, *Lindley in Ann. nat. hist. v.* 4.
fruticosum, *L. no.* 22.
orchidiflorum, *L. no.* 29.
gladiatum, *L. no.* 47.
fuscatum, *L. no.* 38. (Of this E. virescens, *Loddiges*, and E. musciferum, *Lindl.* are varieties.)
pallidiflorum, *L. no.* 41.
biforatum, *Lindley*.
ovalifolium, *L. no.* 39.
elongatum, *L. no.* 54. (E. secundum, *Linnæus*, is no doubt the same plant.)
crassifolium, *L. no.* 55. }
ellipticum, *L. no.* 56. } Are these distinct?
lacerum, *Lindl. in Bot. Reg.* 1838. *misc.* 18.
imatophyllum, *L. no.* 52.
dichotomum, *L. no.* 58.
cochlidium, *Lindley in Ann. nat. hist. v.* 4.
cinnabarinum, *L. no.* 52.
Schomburgkii, *Lindl. in Bot. Reg. t.* 53. 1838.
radicans, *L. no.* 35. (E. rhizophorum, *Bateman.*)
Ibaguense, *L. no.* 53.
flexuosum, *L. no.* 34.

Sect. 2. *Flowers in panicles.*

E. paniculatum, *L. no.* 61.
laxum, *Pöppig & Endl.* 2. *p.* 2.
Hænkeanum, *L. no.* 40.
anisatum, *L. no.* 62.
Martianum, *Lindley in Ann. nat. hist. v.* 4.
thyrsiferum, *Lindley*.
porphyreum, *Lindley in Hooker's Journal*, 3. 86.
polyanthum, *L. no.* 50. (E. bisetum, *Lindl. in Bot. Reg.* 1841. *misc.* 148.)

26

Miss Drake delt. Pub. by J. Ridgway 169 Piccadilly [illegible] Barclay sc.

JASMĪNŬM caudātŭm.

Tail-leaved Jasmine.

DIANDRIA *MONOGYNIA:*

Nat. ord. Jasminaceæ.
JASMINUM. Supra vol. 1. *fol.* 89.

J. *caudatum;* scandens, glabrum, foliis oppositis ternatis, foliolis ovato-lanceolatis longè acuminatis petiolulatis, paniculis cymæformibus terminalibus multifloris, pedicellis filiformibus, calyce subtruncato acutè quinquedentato, corollæ limbo 5-partito tubo breviore: laciniis oblongo-linearibus obtusiusculis.
J. caudatum, *Wallich cat. herb. ind. no.* 2884.

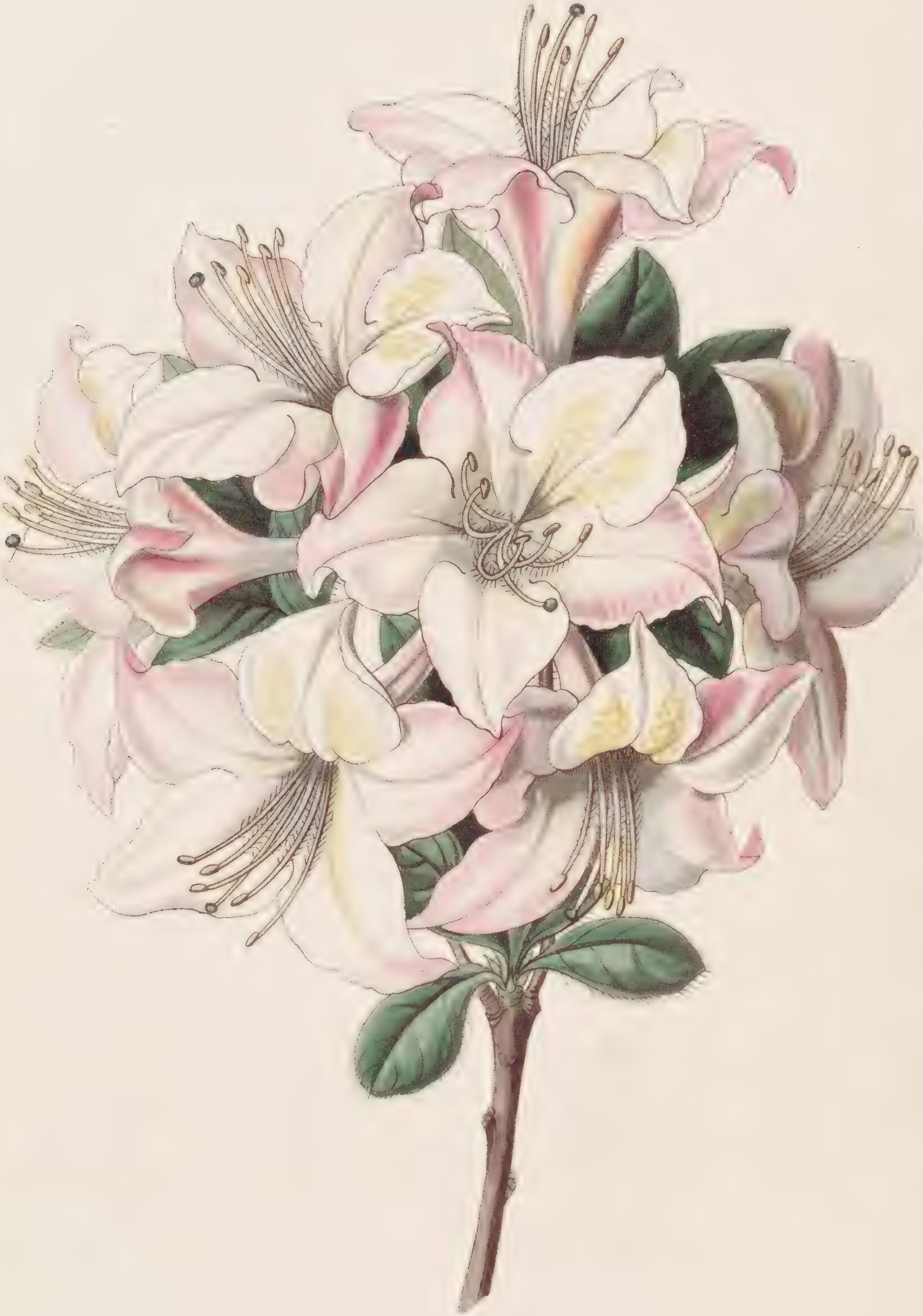
Frutex *gracilis, glaberrimus, scandens.* Folia *nunc, sed rarissimè, simplicia, solito trifoliata,* petiolo ½ *ad* 1 *pollicem longo;* petiolulis *admodùm brevioribus;* foliolis *lateralibus tripollicaribus, intermedio longiore, in caudam sæpè spiralem acuminatis.* Flores *magni, candidi, inodori.*

A very handsome, but scentless, Jasmine, inhabiting the warm valleys of the Sylhet mountains, whence it was introduced into the Botanic Garden, Calcutta.

The only place in which the name exists, as far as I can discover, is Dr. Wallich's Catalogue of the Herbarium of the East India Company, and Steudel's Nomenclator; a description of it I find nowhere.

It is a graceful, healthy looking plant, with deep green, handsome leaves, which are tapered into very long narrow points, whence the name it bears has been given to it. Although the flowers have none of the perfume of the Jasmine, the masses of them, snow-white, and large, render it a handsome species well worth having.

It requires the temperature of a cool stove, where it grows and flowers in great luxuriance. It is well adapted either for planting out in the border of the stove and training up the rafters, or for twining round stakes in a pot. The soil which it seems to like is a mixture of loam, leaf mould, and rotten dung, but it will grow in any free soil. It is easily multiplied by taking off cuttings of the young wood, planting them in sand, and plunging the pots in bottom heat.



Pub by J. Ridgway, 169 Picca

AZALEA altaclerensis.

The Highclere Azalea.

GARDEN VARIETY.

For the following account of this beautiful seedling I am indebted to J. R. Gowen, Esq., whose skill in the production of hybrid plants is well known to all lovers of those beautiful creations.

" This, the most charming, perhaps, of hardy Azaleas, uniting to the utmost beauty of form and arrangement of colour, a most delicious fragrance, is one of the many additions made to our horticultural treasures in this family by the Gardens at Highclere.

" It was produced by fertilizing the flowers of Azalea sinensis with the pollen of the late flowering variety of Azalea viscosa, called by the nurserymen Azalea rubescens major. It bears the most decided evidence of its double parentage having the glaucous foliage and inflorescence of Azalea sinensis modified by the pale crimson tints of Azalea rubescens major. It is most profuse of its odorous flowers, which cover the whole bush, and is altogether a very striking production. I have named it Alta-Clerensis in commemoration of its origin."

The following fact, connected with this plant, may be interesting to some of our readers. When the branch now drawn was sent me, I stripped off a twig or two of the young wood, inserted their ends in a phial of water, and placed them under a Ward's case in a sitting room. There they remained for nearly three months, healthy, but scarcely grew; they however formed a callosity at the lower end, and I have no doubt would have rooted if I had possessed the means of giving them a little bottom heat. I had, however, no convenience of the kind, and before the end of the experiment could be ascertained the case was wanted for other purposes. I entertain little doubt that in such a modification of the Ward's case as is described at p. 796 of the Gardener's Chronicle, for 1841, these Azalea cuttings might have been easily made to root.

22

by J. Ridgway 169 Piccadilly Ma [illegible]

ORNITHŎGĂLŪM divaricātūm.

Straggling Star of Bethlehem.

HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.

ORNITHOGALUM. *Bot. Reg. vol.* 2. *fol.* 158.

Sect. CHLOROGALUM, *Lind. in Bot. Reg.* 1841. *misc.* 111. Perianthium sub anthesi apice cohærens ad latera dehiscens, mòx stellato-patens, demùm supra ovarium connivens. Ovarium loculis dispermis; ovulis collateralibus ascendentibus.

O. *divaricatum;* foliis glaucis longissimis canaliculatis humifusis, paniculâ divaricatâ, perianthii laciniis linearibus undulatis apice cohærentibus mox patentibus, filamentis subulatis apice incurvis, ovarii loculis dispermis. *Lindl. l. c.*

In a large natural order of plants so extremely simple in structure as the Liliaceous, the differences between the genera are necessarily very slight; and hence we find that such groupes as Scilla, Ornithogalum, Allium, Gagea, Urginea, and many more, are distinguished as much by habit as by any absolute variations of structure.

For this reason I greatly doubt the propriety of referring the present plant to Ornithogalum, none of the genuine species of which have a branched inflorescence; and its singular perianth, whose segments at first cohere by the points, while they separate at the sides, thus acquiring a globose appearance, increases the doubts that arise as to its being an Ornithogalum. Nevertheless, with the exception of the dispermous cells of the ovary, nothing seems to warrant the separation of the plant as a new genus. For the present therefore it seems most prudent to regard it as a mere section of Ornithogalum, to which the subgeneric name of Chlorogalum may be applied.

From Camassia or Cyanotris it manifestly differs in the regularity of the flowers and the style not being declinate.

Mr. Hindes, the surgeon of the Sulphur surveying ship, met with this on the coast of California, and sent it to the Horticultural Society, in whose garden it flowered last June. It has large oblong bulbs, covered with coarse brown scales; the leaves are very long, wavy, channelled, of a dull green colour, and being too weak to support their own weight they lie prostrate. The flowering stem is erect, about two feet high, panicled from the base, with straggling branches bearing slender racemes of distant flowers. The latter are white, with a green stripe along the back of each division.

It is a hardy bulbous plant, requiring the same treatment as Veratrums or Helonias, and growing freely in any rich sandy soil. It flowers from July to August. Only a single bulb was received from Mr. Hindes, without any other indication than that of California.

It has hitherto failed to produce seeds in this country.

29

[illegible] del. [illegible] [illegible] Barclay sc.

ECHEVĔRĬĂ acutifŏlĭă.

Sharp-leaved Echeveria.

DECANDRIA *PENTAGYNIA.*

Nat. ord. CRASSULACEÆ.
ECHEVERIA. *Botanical Register, vol.* 15. *t.* 1247.

E. *acutifolia;* caulescens, foliis subrhombeis acutissimis concavis in apice ramorum rosulatis, paniculâ densâ cylindraceâ ramulis 3-4-floris, sepalis acutis quam petala multò brevioribus.

Suffrutex *carnosus, omninò E. gibbifloræ vultu ante anthesin,* foliis *autem magis concavis et multò acutioribus.* Flores *in paniculam contractam cylindraceam vix ultra sex pollices longam ordinati, luteo-coccinei, ramulis rigidis brevibus ascendentibus* 3-4-*floris.* Sepala *linearia, carnosa, acuta, petalis lanceolatis duplò breviora.*

Among the plants found by Mr. Hartweg during a short visit to Oaxaca, in Mexico, was this pretty species, whose succulence and tenacity of life enabled its stems to reach Europe alive. When it was first received by the Horticultural Society it was mistaken for E. gibbiflora, but upon flowering it proved to be a very different and much more handsome species.

The differences between the two are as follows. The leaves of *E. acutifolia* are acute, in *E. gibbiflora* they are obtuse; in the former too they are much more green and richly touched with scarlet than in the latter. In *E. acutifolia* the flowers are disposed in a short narrow erect cylindrical panicle, and they are of rich scarlet tinged with yellow; in *E. gibbiflora* they grow in a loose rambling panicle, and are much less brilliantly coloured. Finally, the lateral branches of *E. acutifolia* are short, straight, and only bear three or four flowers in a corymbose manner at the end; while in *E. gibbiflora* they grow all along one side of long drooping zigzag many-flowered shoots.

For the mode of cultivation see t. 22 of this volume.

May, 1842.

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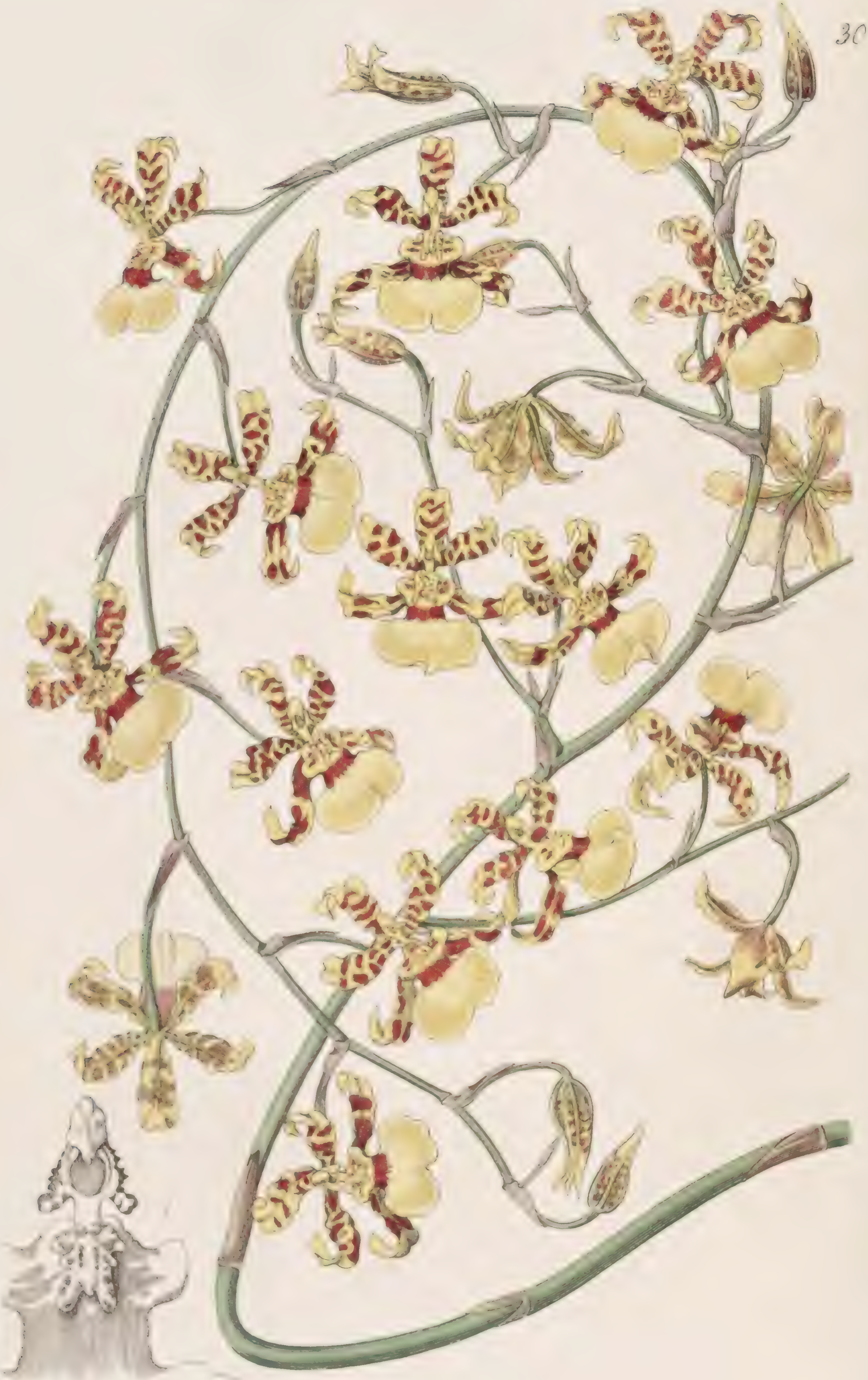


ONCĬDĬŪM sphacelātūm.

Scorched Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
ONCIDIUM. Supra vol. 9. fol. 727.

Sect. Euoncidium; †† Heteranthium; * Folia plana; ‡‡ Pentapetala; ¶¶ Micropetala; ☞ ☞ Labellum panduratum. *Lindl. in Sertum Orchidaceum sub t.* 48.

O. *sphacelatum;* pseudobulbis elongato-ovatis ancipitibus a latere planiusculis, foliis longis ensiformibus apice recurvis, scapo stricto, racemo composito multifloro, sepalis petalisque lineari-lanceolatis undulatis labello æqualibus, labello medio constricto basi auriculato apice dilatato rotundato bilobo, cristâ depressâ pubescente a latere dentatâ apice trilobâ, columnæ alis elongatis truncatis erosis sphacelatis. *Lindl. l. c.*

All who are acquainted with the genus Oncidium are aware of the difficulty of distinguishing the larger of the yellow-flowered species, and of determining even any of them by books. In the number of the Sertum Orchidaceum just published I have attempted to diminish those difficulties by new classification of the species, and by a very careful correction of their characters. One hundred and one species are there admitted, and many repetitions are referred to their proper places as synonyms.

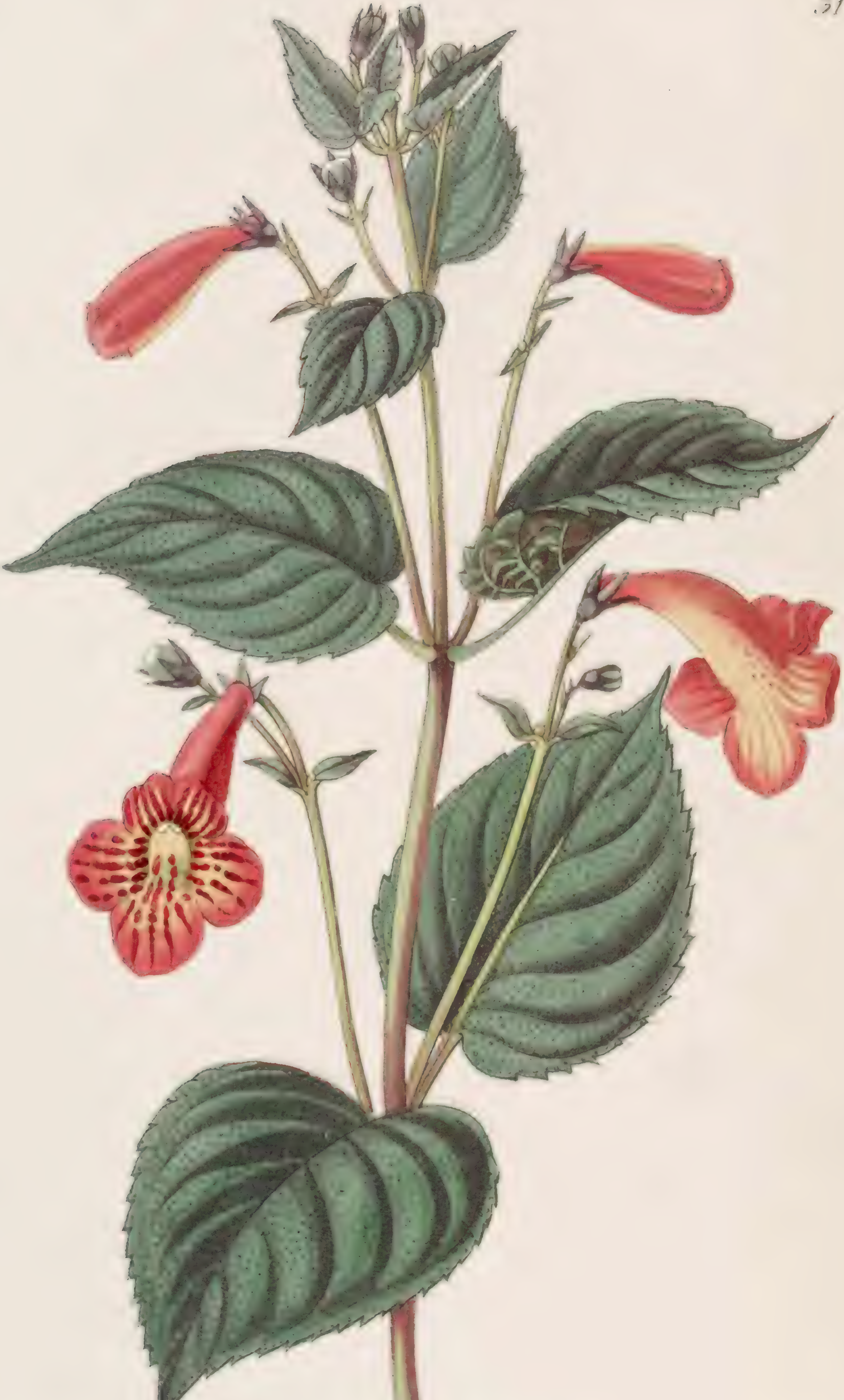
Among the new species, described in that place for the first time, is the plant now figured, one of the most beautiful yet known, which has been sent from Guatemala to his friends by Mr. Skinner, by Mr. Hartweg from the same country and Mexico to the Horticultural Society, and from Honduras to Messrs. Loddiges, with whom the species first flowered in February, 1841, when the accompanying figure was taken.

In habit it resembles O. reflexum, Pelicanum, and Baueri;

but it is immediately known from them by the wings of the column, which are long, notched, and bordered with brown, as if scorched, as is shewn at fig. 1.

There are two varieties in cultivation, one much handsomer than the other, with larger flowers. This is the inferior sort.

31



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ACHIMĒNĒS pedunculātă.

Long-stalked Achimenes.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Gesneraceæ.
ACHIMENES. Botanical Register, 1841. *t.* 65.

A. *pedunculata;* caule erecto simplici pubescente, foliis parùm inæqualibus petiolatis obliquè cordato-ovatis serratis suprà sparsè pilosulis subtùs ad venas pubescentibus, pedunculis subbifloris folio longioribus calycibusque pubescentibus, corollâ nutante infundibulari elongatâ, limbi laciniis planis supremis minoribus.
A. pedunculata. *Bentham in Plant. Hartweg. p.* 78. *no.* 546.

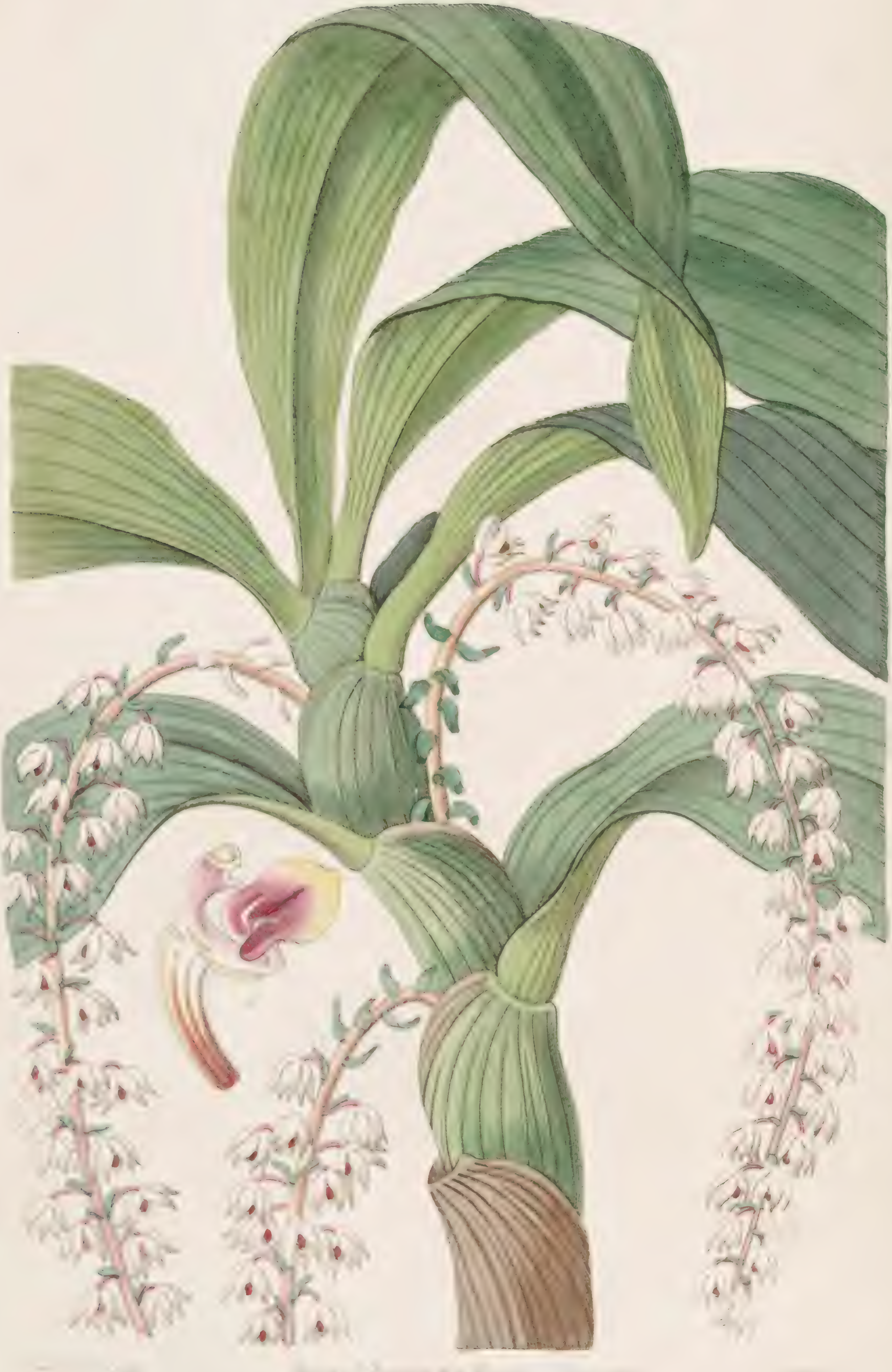
The shady woods of Santa Maria, in Guatemala, produced this fine species for Mr. Hartweg, who forwarded it to the Horticultural Society. It flowered for the first time in September 1841.

In appearance it is more like a Gesnera than an Achimenes, but, if the limits assigned to these genera by DeCandolle are the true ones, Mr. Bentham has rightly placed it in Achimenes. For it has a cup-shaped disk and distinct anthers which appear to be among the most important attributes of the latter genus. It has too the thin soft foliage of Achimenes instead of the thick coarse leaves of a Gesnera.

In a cultivated state the appearance of this species is much improved. The wild specimens have larger leaves and smaller flowers, and look like drawn up plants pulled out of a thicket where they had been struggling with darkness and a scanty soil for their existence. In the hothouse the flowers are more numerous, larger, and of a peculiarly deep scarlet, richly marked with rows of crimson spots. It is a good addition to collections.

June, 1842.

It was introduced at the same time as A. longiflora and A. rosea, and requires much the same treatment as those species. The stems die off after it has done flowering in the autumn, and then the pot in which the bulbs are ought to be kept perfectly dry until spring, when they should be re-potted in fresh soil and kept moist. They will soon grow vigorously, and will then require a liberal supply of water. Any light rich soil will suit them, and they may be grown in a house a little warmer than a common greenhouse, but not so hot as a stove. Like the other species it may be multiplied abundantly either by parting the scaly bulbs in spring, or by striking the young shoots. The period of flowering is summer and autumn.



ĔRĬĂ polyūră.

Many-tailed Eria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § MALAXEÆ.
ERIA. *Botanical Register, vol.* 11. *fol.* 904.

E. polyura (Lindl. in Bot. Reg. 1841. misc. 144.) (Tonsæ.); caule elongato folioso, foliis lanceolatis acutis patentibus striatis, spicis oppositifoliis multifloris nutantibus foliis æqualibus v. brevioribus, bracteis ovario duplò brevioribus adpressis, sepalis petalisque ovatis acutis erectis lævibus, labello cordato ovato acuto basi bicarinato.

Of the now very numerous species of Eria this is one of the more graceful, producing from the sides of long leafy fleshy stems a profusion of delicate tails of flowers, each nearly six inches long. The flowers resemble little semitransparent bells just tinged with pink, and having a rich purple and yellow centre.

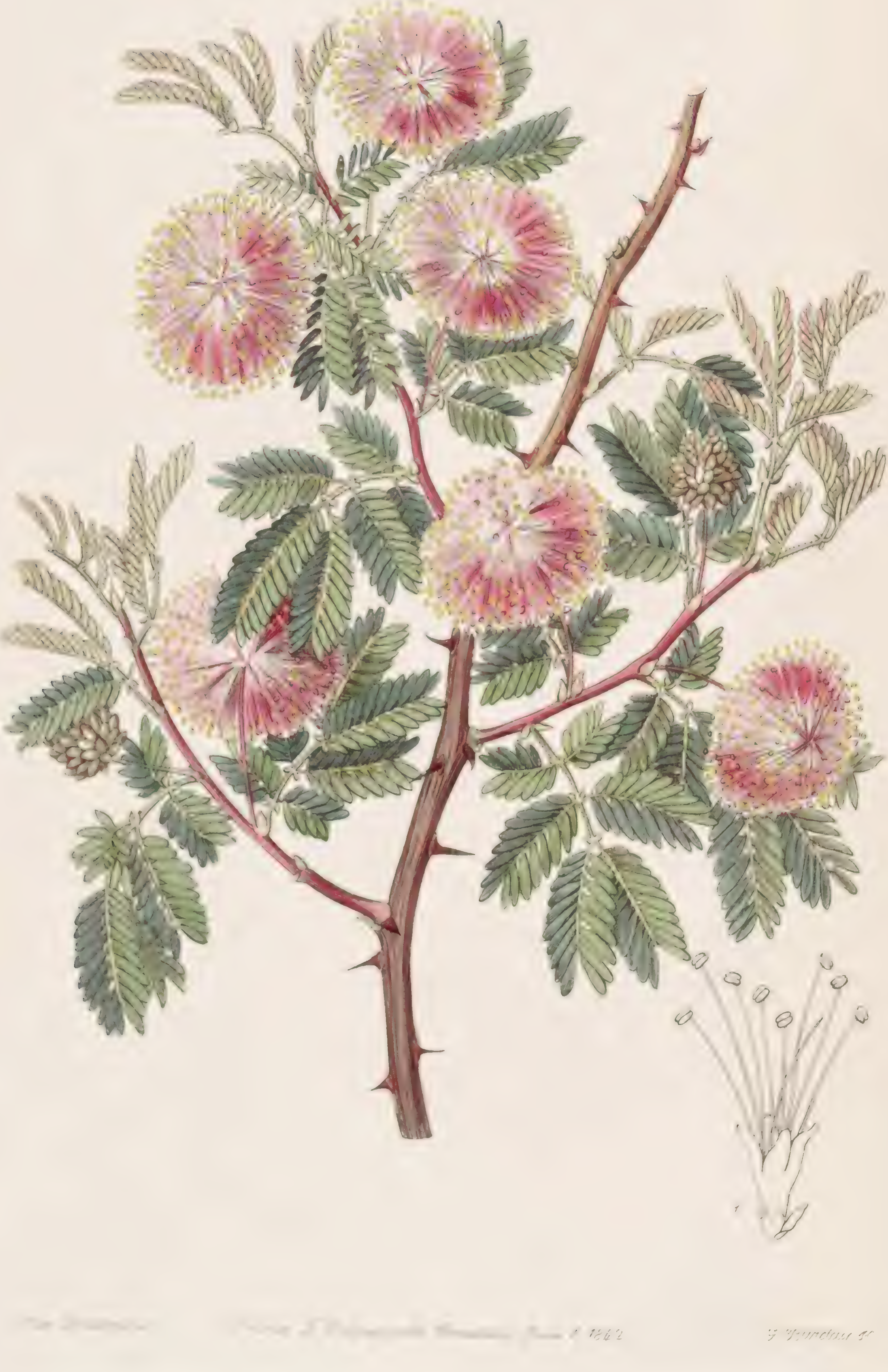
The latter appearance arises from the labellum, which is ovate, heart-shaped, and a rich port-wine purple, with a bright yellow tip.

Mr. Cuming found it in Manilla, and sent it to Messrs. Loddiges, with whom it flowered in October 1841.

Eria floribunda, to which it nearly approaches, differs in having smaller flowers, erect racemes, and a narrow wedge-shaped lip, with a solitary tooth on each side.

It is a plant of the easiest cultivation, but requires a hot damp atmosphere, such as that of an Orchidaceous house where Dendrobiums and such plants flourish. The general treatment ought to be the same as is given generally to the extensive race to which it belongs.

33



Miss Drake del. Publ. by J. Ridgway & Sons Piccadilly June 1 1842 G. Barclay sc.

MIMŌSĂ Uruguēnsĭs.

The Uruguay Mimosa.

POLYGAMIA *MONŒCIA.*

Nat. ord. LEGUMINOSÆ, § MIMOSEÆ.
MIMOSA. Botanical Register, vol. 1. *t.* 25.

Sect. III. AMERIA. *Flores* tetrameri v. sæpe pentameri. *Stamina* numero petalorum dupla. *Legumen* pleiospermum v. polyspermum, intus transverse septatum v. uniloculare, valvulis planis v. convexis, indivisis.—*Frutices*, arbores v. rarius herbæ. *Petioli* glandulis orbati et rarius inter pinnas setosi. *Pinnæ* pluri-v. multijugæ, rarius unijugæ aut nullæ. *Foliola* sæpius multijuga. *Calyx* varius. *Corolla* membranacea. *Legumen* nunc undique setosissimum, v. hispidum, nunc glabrum nudum v. margine aculeatum.—Species omnes Americanæ. *Bentham in Hooker's Journal, l. c.* 403.

§ 3. *Stipellares. Frutices* divaricato-ramosi, glabri v. canescenti-pubescentes nec setosi, sparse aculeati v. rarius inermes. *Pinnæ* pauci-rarius multijugæ. *Stipellæ* ad basin petiolorum minimæ orbiculatæ, nec ut in cæteris *Mimosis* setaceæ vel setaceo-acuminatæ. *Pedunculi* axillares. *Capitula* globosa. *Flores* tetrameri. *Calyces* parvi non ciliati. *Legumen* planum, glabrum pubescens v. tuberculatum, nec setosum nec aculeatum, margine cartilagineo. *Bentham, l. c.* 406.

M. *uruguensis;* glabra, aculeis sparsis rectis, stipulis lato-ovatis acutis, pinnis 1-2-jugis, foliolis 8-12-jugis oblongo-linearibus, pedunculis folio sublongioribus, bracteolis parvis, legumine lineari falcato scabro. *Bentham, l. c.* 407.

M. uruguensis. *Hooker & Arnott, Botanical Miscellany, vol.* 3. *p.* 202.

A pretty greenhouse shrub, very nearly hardy, which would no doubt improve much in appearance under the hands of a good cultivator, and it would reward his pains.

It is a native of the province of Buenos Ayres, whence seeds were received by the Hon. W. F. Strangways, and given to the Horticultural Society. It flowered at Chiswick in June 1841.

In the elaborate enumeration of Mimosas by Mr. Bentham in Hooker's Journal of Botany, we find 194 genuine species described, divided into three sections; the first, *Eumimosa*, has the stamens and petals equal in number; in the second and third sections the stamens are twice as numerous as the petals: but one, *Habbasia*, has the valves of the pods jointed; the other, *Ameria*, to which the species before us belongs, has the valves continuous, not jointed. Each section is subdivided into natural groups, by which the determination of the species is very much facilitated; the sub-division containing this plant comprehends six other species, none of which appear to be in this country, unless perchance, M. *lucidula*, which has flowered at Berlin, should have found its way hither.

It requires such protection in this country as is given to Verbenas, Acacias, and things of that description. It grows well in a mixture of light loam and leaf mould, and may be readily propagated by cuttings in the usual manner.

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[illegible] [illegible] [illegible]

HELLĔBŎRŬS orientālĭs.

Eastern Hellebore.

POLYANDRIA *PENTAGYNIA.*

Nat. ord. RANUNCULACEÆ.
HELLEBORUS. Botanical Register, vol. 19. *t.* 1643.

H. *orientalis;* foliis radicalibus pedatisectis, floralibus sessilibus palmatis, laciniis lanceolatis serratis basi sejunctis integerrimis, pedunculis bifidis trifidisque, sepalis subrotundo-ovatis acutis petaloideis candidis purpurascentibus.
H. orientalis. *Decand. Syst.* 1. 317.
H. officinalis. *Fl. Græca, t.* 583.

A poison so deadly as that which the ancients called Black Hellebore would naturally attract the attention of the moderns; and accordingly, from a very early period, a plant, occurring plentifully in the middle of Europe, and as far south as Laconia and Mount Athos, has been selected as the classical species. That is what we call the Christmas Rose, or Helleborus niger, and there is nothing in the brief description given by Dioscorides at variance with it, except that he calls the flowers ἐμπόρφυρα or purplish, which can hardly be said of the Christmas Rose, which is white.

It is however the opinion of Botanists that in reality the Black Hellebore of the ancients was not the Helleborus niger, but another species, called by some H. orientalis, by others H. officinalis, which we have now the opportunity of figuring. The roots that produced it were gathered on the Bithynian Olympus by Mr. Sandison, H. M. Consul at Brusa, and sent to the Horticultural Society. In its purplish flowers it corresponds with the description of Dioscorides, and is probably the plant he wrote of. No doubt it is what Tournefort found (*Voyage, p.* 474) in that country, and recognized as the poison of the ancients. We do not however find any trace of hairiness on the underside of the leaves, which DeCandolle speaks of; on the contrary they are perfectly smooth.

No doubt this is hardy, although, on account of its great rarity it has at present been kept in the greenhouse. If so, and it should flower at the same time as the Christmas Rose, as is probable, it will be a welcome addition to our collections.

In the greenhouse it flowers in February and March, and requires rather a damp shady situation, with peaty soil to grow in. It is easily increased either by dividing the old plants, when sufficiently large, or by seeds, which should be sown directly they are ripe.

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[illegible] [illegible] [illegible]

HABRANTHUS pratensis.

Meadow Habranthus.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ.

HABRANTHUS. *Botanical Register, vol.* 16. *t.* 1345.

H. *pratensis;* foliis linearibus viridibus dorso convexis, umbellâ 2-3-florâ, perianthio (coccineo) campanulato apice revoluto subobliquo vix tubato, filamentis basi extùs glandulosis, appendicibus faucis lineari-lanceolatis acuminatis, stigmate subsimplici.

H. pratensis. *Herb. Amaryllid. p.* 159.

Amaryllis pratensis. *Pöppig Synops. p.* 5.

For an acquaintance with this beautiful plant I am obliged to C. B. Warner, Esq. who received its bulbs from South Chile. It has a peculiarly brilliant appearance, on account of the contrast between the rich yellow at the bottom of its flowers and bright crimson of their limb. It altogether reminds one of the Hippeastra of the warm provinces of Brazil.

It is upon the authority of the learned Dean of Manchester that I refer it to the Amaryllis pratensis of Pöppig, who says it occurs in the meadows of South Chile, near Antuco; but I have nevertheless some doubts of the identity of the plants, for the species of Pöppig is described with glaucous leaves and serrated faucial appendages, while in that before us the latter are entire and the former green.

These faucial scales are unusually large in the subject of our plate, and in fact rival what occur in the curious genus Placea (t. 50. 1841). They are of the same nature as the coronet or cup of Narcissus, but whether or not they also represent the thick ring on the throat of Hippeastrum, and the cup of Pancratium may be doubted.

June, 1842.

It seems to like a light loamy soil to grow in, and sends up the flower-stems and leaves early in spring. After the flower fades the plant ought to be grown in a light situation and freely watered, in order that it may be able to perfect its leaves. When these are fully formed and die off, it ought to be removed to a dry shelf and kept there until the period of growth comes round, when it can be watered and treated as before. Young bulbs are formed round the old one every season, by which it can be propagated.

S.A. Drake del.   Pub. by J. Ridgway 169 Piccadilly June 1 1842   G. Barclay sc.

CŒLĬĂ Bauerānă.

Mr. Bauer's Cœlia.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Epidendreæ.

CŒLIA. Lindl. *Sepala* distincta, conniventia, subæqualia: lateralibus basi obliquis. *Petala* subæqualia. *Labellum* cum columnâ subparallelum, apice patulum, basi excavatum, indivisum. *Columna* nana, erecta, semiteres, basi paulò producta; *stigmate* rotundato excavato prominente, rostello inflexo. *Anthera* ovata, bilocularis. *Pollinia* 8, quaternatìm materiê pulvereâ in 2 paribus cohærentia. *Ovarium* 9-alatum.—— Herbæ *epiphytæ pseudobulbosæ, basi squamatæ*; foliis *gramineis subplicatis*, scapo *radicali squamato*, bracteis *longissimis.*

C. *Bauerana* (L. 36. Bauer's Illustrations, Genera, t. 3. *Epidendrum tripterum*, Smith. *Cymbidium tripterum*, Swartz.); foliis gramineis racemo multò longioribus, bracteis floribus subæqualibus, labello unguiculato ovato obtuso margine calloso.

The West Indies and Mexico produce this little epiphyte, which, although white and inconspicuous, is, like our own Lily of the Valley, so sweet that it must take precedence of most of its race. No Hawthorn hedge is more fragrant than a bed of this Cœlia.

The genus was founded upon a drawing made in February 1810 by the late Mr. Francis Bauer, and published in his illustrations of Orchidaceous plants. In that place the pollen-masses were represented as being four in number, and concavo-convex, so that, lying in pairs side by side, each pair formed a hollow body narrower at back than in front. It was by this circumstance that the name of the genus was suggested (from κοιλος hollow). To my very great surprise, however, I find, upon examining the plant myself, which I have now for the first time been enabled to do by the communication of a fresh specimen from Mr. Rogers, that no such structure as that represented by Bauer exists. On the contrary the pollen-masses are eight in number, placed in fours in double pairs, and of the supposed hollowing out no trace is discoverable; but they are as usual plano-convex, and are bound together by a powdery strap. The whole character of the genus has in consequence to be changed, as well as its position in the arrangement, which is not very far from Eria.

In consequence of the erroneous representation given in Bauer's illustrations, the analyses in the accompanying plate are more than usually copious. Fig. 1. represents the column and labellum seen in profile; 2. is the upper side of the labellum; 3. is the back of the column; 4. is the anther seen from above; 5. is the eight pollen-masses seen in front; 6. is two pairs in their true position; 7. is a transverse section of the ovary.

I never saw this plant growing so well as when cultivated in a cool stove, and suspended from the rafters on a block of wood. Almost all who grow many of this tribe are now dividing those which require a hot temperature from others which grow best in a cooler place. Amongst the latter, therefore, this should be placed, and it will grow and flourish with little care. It grows fast and is easily multiplied.

Only one more species of this genus is known, and has been largely imported from Guatemala. It has red flowers, and is a far more conspicuous plant than this. The following is its character:—

C. ***macrostachya*** (Lindl. in Bentham pl. Hartweg.); pseudobulbis ovatis, foliis ensiformibus plicatis, racemo longissimo multifloro, bracteis lineari-lanceolatis acuminatissimis squarrosis, labello lanceolato basi bisaccato. ——*Guatemala.* —— Folia pedalia et ultra, racemo 6-8-poll. longo. Scapus basi squamis 3-4 ventricosis adpressis vaginatus.

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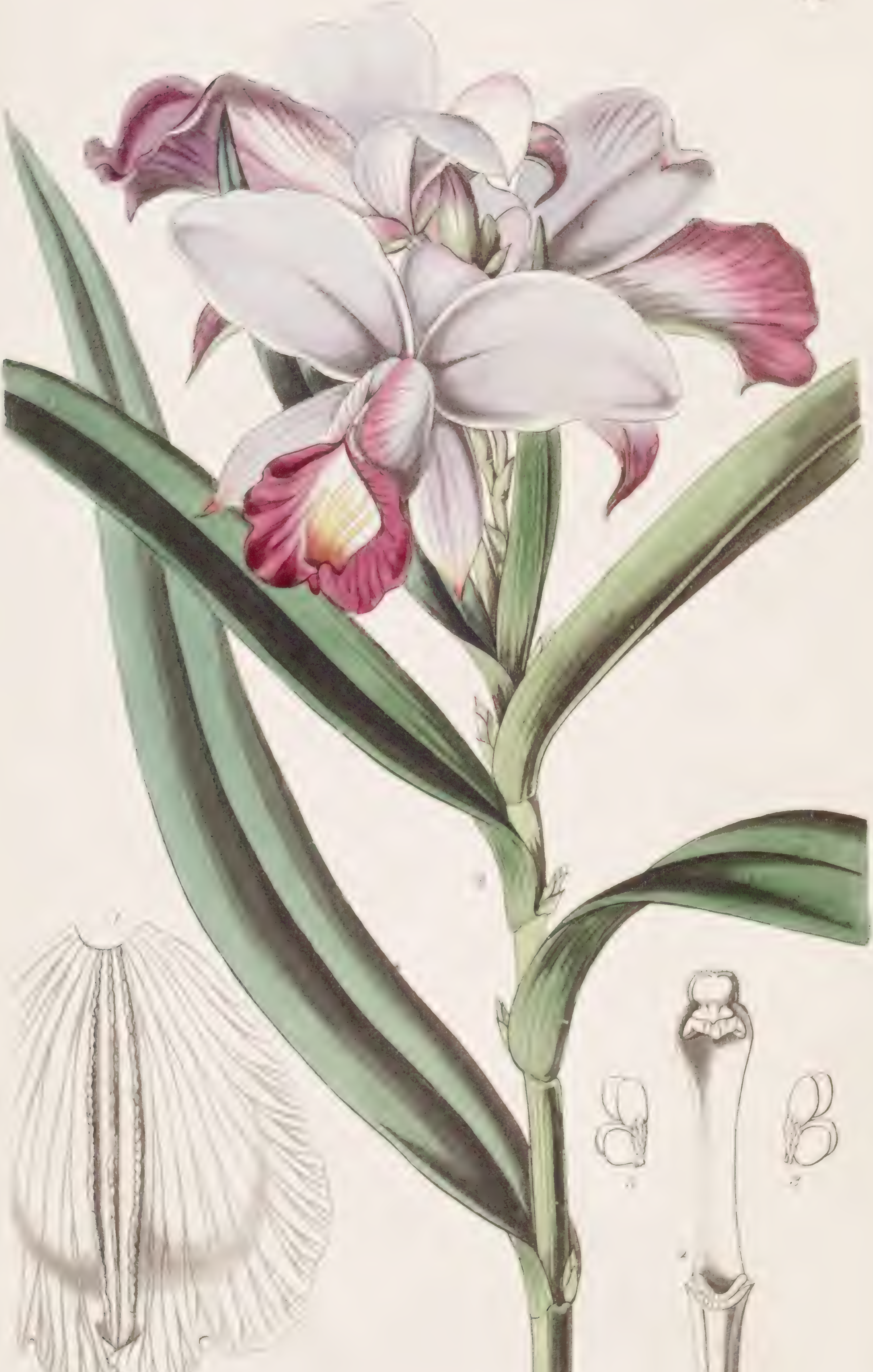

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ARUNDĪNĂ dēnsă.

Close-flowered Reedorchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § EPIDENDREÆ.

ARUNDINA. Blume. Sepala lineari-lanceolata, æqualia, patula, basibus paululùm connatis. *Petala* conformia, latiora. *Labellum* circa columnam convolutum, trilobum v. integrum, medio cristatum aut lamellatum. *Columna* recta, cum labello parallela, semiteres, clavata. *Anthera* 4-locularis, truncata, rotundata. *Pollinia* 8, æqualia, materie granulosâ cohærentia. *Stigma* fornicatum, prominens, sublobatum.——Herbæ *caulescentes, arundinis facie;* foliis *distichis ensiformibus acuminatis plicatis.* Flores *terminales, membranacei, purpurei, speciosi.*

A. *densa;* labello obovato-subrotundo quadrilobo apiculato laciniis rotundatis, lamellis 3 subæqualibus crispatis rectis, petalis oblongis, foliis subæqualibus. *Supra misc. no.* 26.

Of the fine Oriental genus Arundina we now possess two species in gardens, this and *A. bambusifolia.* Two only, *A. chinensis* and *minor* remain to be introduced; the former is found on the islands near Macao, the latter is from Ceylon.

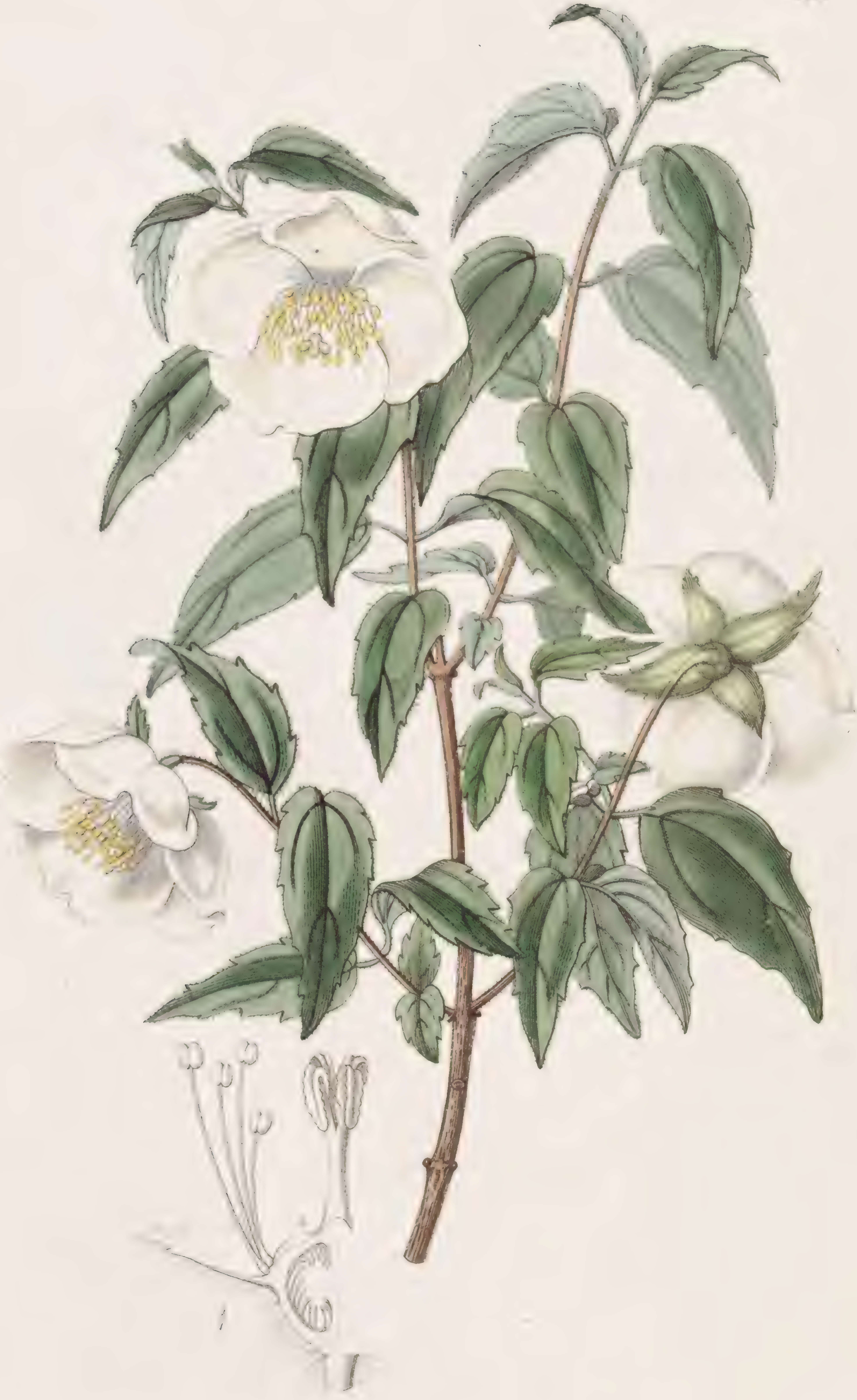
The species now figured is a native of Sincapore, whence it was sent to Messrs. Loddiges by Cuming; among whose dried plants however I do not find it. It differs from A. bambusifolia in its leaves being nearly equal, and not gradually diminishing into small sheaths as they approach the flowers: and in the flowers being very closely, but loosely, arranged; and in the small size of the middle lobe of the lip, which is almost blended with the large lateral lobes. There is a difference too in the crested veins of the lip, which are all three crisped in *A. densa,* while the middle one is straight and even in *A. bambusifolia.*

The peculiar habit of this genus renders it easy to recognize. In structure it is near Phaius, from which it differs in the want of a spur to the lip, and in its column not being at all extended at the base into a foot.

Fig. 1. represents the lip spread open ; 2. is the column ; 3. the two sets of pollen-masses.

Not only are the flowers of this very handsome, but they emit a most agreeable perfume.

It requires to be grown in the orchidaceous stove. It should be potted in brown turfy peat, and should have the pot well drained. Water ought to be liberally given, particularly when it is growing freely, and at all times it requires more than plants with large pseudo-bulbs, and will suffer much if it is withheld for any length of time.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PHILADĒLPHŬS mexicānŭs.

Mexican Syringa.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. PHILADELPHACEÆ.

PHILADELPHUS. *Botanical Register,* 1838, *t.* 14.

P. *mexicanus;* ramis laxis pubescentibus dependentibus, foliis ovatis acutissimè acuminatis remotè et argutè denticulatis integerrimisve triplinerviis subtus hirtellis supra dein glabris, floribus solitariis ternisve in apicibus ramulorum, calycis obconici densè pubescentis laciniis latè ovatis quasi mucronato-acuminatis, stylis 4 ad basim ferè liberis stamina subæquantibus (petalis subrotundis). *Schlecht. in Linnæa, vol.* 13. *p.* 418.

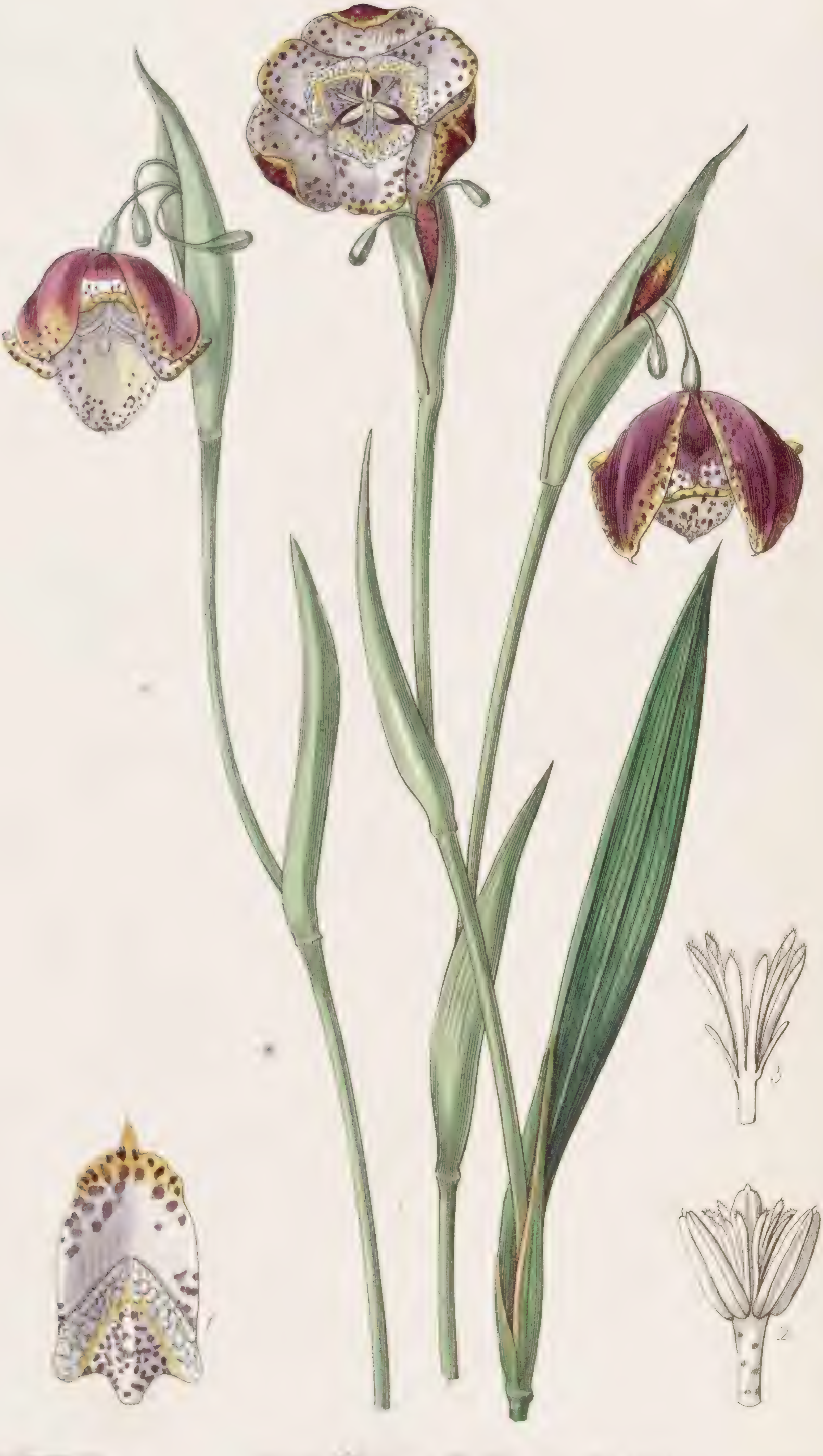
This new half-hardy, or perhaps hardy, shrub has been introduced by the Horticultural Society from Mexico, by the assistance of Mr. Hartweg. It forms a small bush, with weak branches, and has the merit of being an excellent plant for forcing.

I refer it to the P. mexicanus of Schlechtendahl, but with some doubt, for that author says his styles are almost distinct to the base, which is by no means the case here. I perceive however no difference between the garden plant and his own specimens, now before me, except that they are, as he says, double, and that may account for the disunion of the styles.

It is cultivated at Jalapa, and grows wild in the hedges there; also at Oaxaca and the city of Mexico, according to Schlechtendahl. Hartweg found it at the Hacienda del Carmen, which is mentioned in the Linnæa as the locality of Philadelphus affinis, a species with 5-flowered racemes, and therefore very different from this.

Schlechtendahl is probably right in regarding this plant as the Acuilotl or climbing aquatic of Hernandez; at least his figure is a fair representation of it. This old author speaks of it as an inhabitant of wet and marshy places, creeping along the ground or scrambling up neighbouring trees; and he compares the plant when in flower to a Musk Rose. He says an essence is distilled from the flowers which is very sweet and agreeable.

This is in cultivation the smallest of all the species yet known, not growing more than two feet high. It is sub-evergreen, and rather tender, being sometimes killed to the ground by the severity of winter. It flowers freely about the end of June, if planted in the ordinary garden soil, and strikes freely from cuttings of the half-ripened shoots.



G. Barclay sc

* HYDROTÆNĬĂ Melēagrĭs.

Spotted Waterband.

MONADELPHIA *TRIANDRIA.*

Nat. ord. IRIDACEÆ.

HYDROTÆNIA, Lindl. Perigonium campanulatum, subisomerum; petalis unguiculatis supra unguem zonâ triangulari multiflorâ fasciatis. *Stamina* 3, monadelpha sepalis opposita; *antheræ* sessiles, basifixæ, loculis connectivum marginantibus. *Ovarium* apice liberum conicum; *ovula* plurima, angulo centrali loculorum inserta; *stylus* filiformis, apice trifidus: laciniis tripartitis linearibus convolutis: intermediâ nanâ antheris oppositâ lateralibus geminatim inter antheras projicientibus.

Hydrotænia Meleagris. *Botanical Register,* 1838, *misc. no.* 128.

A full account of this very rare and curious plant is given in the volume of this work for 1838; the accompanying figure will complete its illustration. It was taken from a plant which flowered last summer in the garden of the Horticultural Society.

Although in reality allied very closely to the genus Sisyrinchium it has quite a different habit, imitating as it were the Fritillaria in the Amaryllidaceous order. Its appearance is by no means attractive, but the interior of the flower, when carefully examined, will be found to exhibit beauties of no common kind. The curious watery band, which glitters as if covered with dew, or as if constructed out of broken rock crystal, is one of the most curious objects I know. The stigmata too are extremely remarkable; each divides into two arms, which are rolled up as if forming a gutter, with a dense mass of bright papillæ at the end, and a single tooth on the inner edge; between the arms stands a short mucro which is free from glands, and forms a minute horn. It is by the union of 3 such stigmata that the nine lobes of the style are produced.

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* Is named from ὑδωρ water, and ταινια a band, in allusion to the bar of shining water-like tissue which is placed on the petals in the form of two sides of a triangle.

Fig. 1. represents a petal seen from within ; 2. is a view of the column, and 3. of the style and stigmata apart.

Hydrotænia is a greenhouse bulb of which the cultivation is extremely simple. The pots in which it is kept ought to receive no water after the leaves have withered in autumn, until they begin to grow again in spring. A dry shelf in the greenhouse is an excellent place to keep it during the winter. When it commences its growth it ought then to be placed in a light situation, and to be watered gently at first and then freely afterwards, when it will soon form its leaves and flowers. It succeeds perfectly in equal parts of loam, leaf-mould and sand, and is multiplied by offsets or seeds.

GESNĒRĂ longifŏlĭă.

Long-leaved Gesnera.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.
GESNERA. Supra 1841, *tab.* 63.

G. *longifolia;* caule herbaceo crasso tereti tomentoso, foliis oppositis et subalternis petiolatis lanceolatis crenato-serratis utrinque angustatis, pedicellis ad axillas foliorum summorum fasciculato-verticillatis unifloris petiolo paulò longioribus in racemum terminalem dispositis, corollâ cylindraceo-ventricosâ villosâ: limbo regulari, glandulis 5 linearibus, staminibus inclusis. *Botanical Register,* 1841, *misc.* 190.

This is a remarkable species, with more the habit of *G. allagophylla* than of such species as *G. faucialis, bulbosa,* and the others commonly cultivated. It grows about two feet high, and is closely covered by a dense grey down. The leaves grow in stems, and are sometimes eight or nine inches long, of a lanceolate form, thick, petiolate, serrated towards the upper end, and by no means wrinkled. The flowers are produced in long close cylindrical terminal whorled racemes, three or four growing together from the axils of short floral leaves.

The corollas are brick red, about an inch long, somewhat cylindrical, but inflated above the middle, with a short 5-toothed spreading limb, whose divisions are all of the same size and form. There is no trace of the obliquity which occurs in G. bulbosa and its allies. The ovary is half superior, and surrounded by five yellow tooth-shaped glands tipped with red.

It is a native of Guatemala, whence it was sent to the Horticultural Society by Mr. Hartweg.

Nothing can be more easy than its cultivation; for it requires the same management as is given to such plants as Gloxinia maculata.

It is increased from the young shoots, which should be treated in the following way: when they are two or three inches long take them off and put them in pots filled in the ordinary way with sand; give a little water to settle the cuttings, and cover them with a bell-glass. Then place the pots on a warm flue, or, if in summer, on a warm shelf in the stove, shading them from the sun by placing a sheet of paper over the glasses; they will soon root freely, and may be transferred to small pots filled with a mixture of sandy peat and leaf-mould unsifted. They will afterwards require shifting and plenty of water during the growing season; after which they should be rested by gradually withholding the supply of water.

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STYLĬDĬŪM pilōsum.

Hairy Stylewort.

GYNANDRIA *TETRANDRIA.*

Nat. ord. Stylidiaceæ.
STYLIDIUM. Botanical Register, vol. 1. *fol.* 20.

S. *pilosum;* scapo glanduloso-pubescente subramoso, foliis planis elongatis lanceolato-ensiformibus, petalis 4 undulatis repandis denticulatis quinto oblongo medio calloso basi biappendiculato nano deflexo, faucis squamis 2 semi-lanceolatis ciliatis hinc denticulatis.
S. pilosum. *Labill. Nov. Holl.* 2. 63. *t.* 213. *DeCand. Prodr.* 7. 332.
S. longifolium. *Richard in Pers. Synops.* 2. 210.

The plants of this Stylewort now in cultivation have, I believe, been all raised from Swan River seeds; the species being not uncommon in that colony. It has the largest flowers of any yet introduced, and when in good health forms rather a handsome appearance. It is sometimes met with under the name of Stylidium Dicksoni.

The natural situation of such plants is said to be sandy plains, dry on the surface, but wet and springy underneath, by which, notwithstanding the hot sun which shines upon them, they are able to maintain a healthy state. Art will, however, render them much handsomer than they are when wild, if we are to judge from what has recently been done with St. fasciculatum; and we do not despair of seeing the very species now before us with a large panicle of flowers.

From the bad state in which the species of Stylidium are found in herbaria, where they are chiefly known, their distinctive characters are far from being well ascertained. It seems probable that the mere presence or absence of glandular hairs upon their surface is of little moment, and that the structure of the corolla and its coronet will prove much more constant. In this case the latter consists of two falcate toothed ciliated scales, while the fifth petal is oblong, with a tubercle in the middle, and a pair of small narrow lobes at its base, as is shewn at fig. 1.

It is a neat little greenhouse perennial, requiring a soil composed of sandy peat, mixed with a small portion of loam.

It should be kept in small pots, and treated as a subaquatic during the growing season in summer, but must be kept rather dry during the winter, and in a cool part of the greenhouse, where there is plenty of light and air. It is easily increased from seeds.

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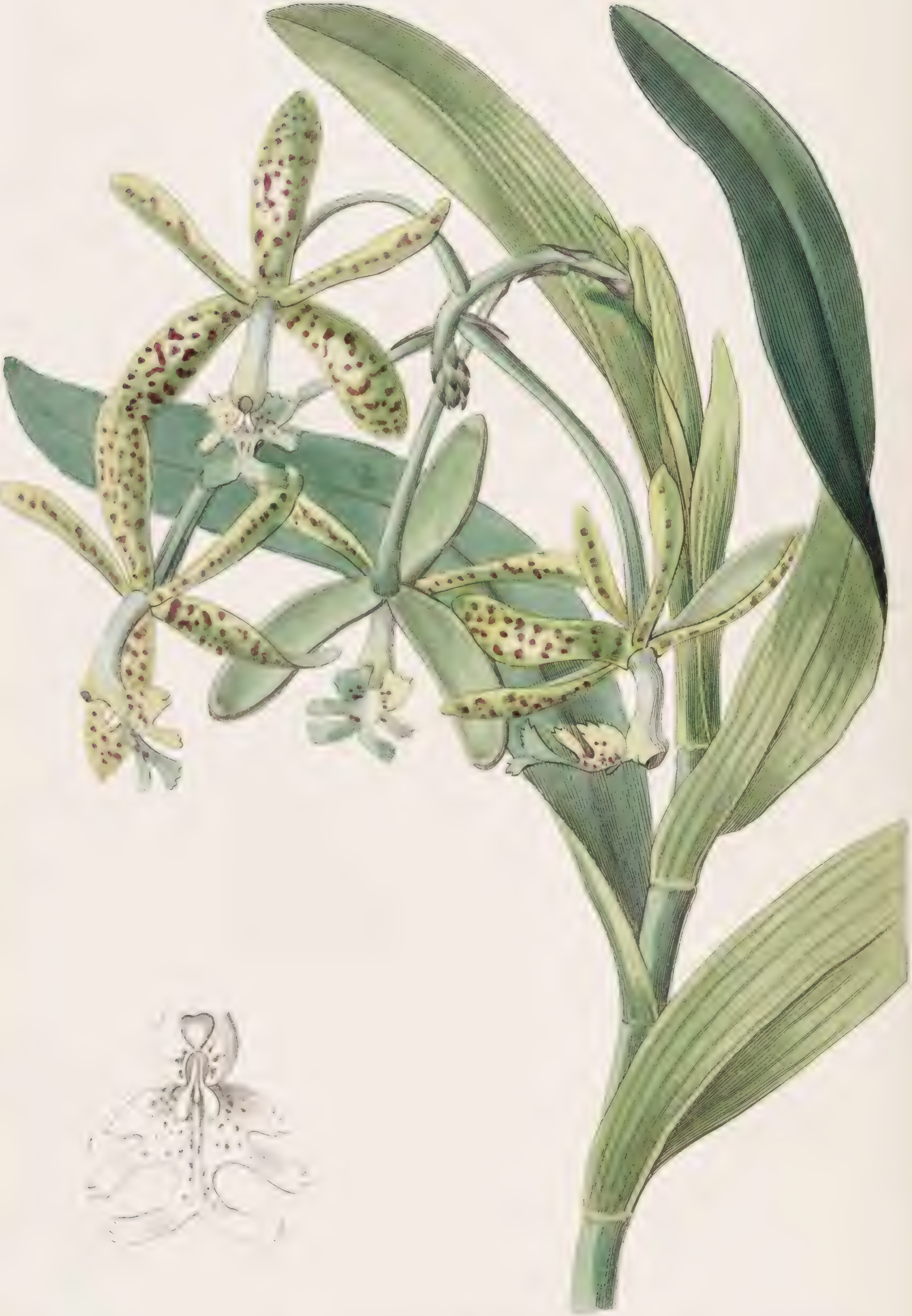

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EPIDĒNDRŪM ranĭfĕrūm.

Frog Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Epidendreæ.

EPIDENDRUM, § Spathium. *Caulis* foliosus erectus. *Pedunculus* elongatus e spathâ erumpens. *Labellum* adnatum. *Lindl. in Hooker's Journal,* 3. 85.

E. *raniferum ;* (L. no. 64.) foliis distichis lanceolatis, racemis terminalibus lateralibusque divaricatis multifloris, sepalis ligulatis convexis obtusis petalisque linearibus cuneatis mucronulatis patentissimis, labelli sexlobi basi 3-callosi laciniis integerrimis dentatisque : posticis rotundatis—intermediis linearibus—anticis linearibus obtusis retrorsum falcatis.

Although a good deal like E. nutans, this species is really very distinct, and indeed far handsomer : in consequence of the rich purplish brown spots with which the sepals and petals are profusely decorated. It was originally described from bad dried specimens from Mexico, in Mr. Lambert's Herbarium, labelled Ophrys tigrina. Within a few years it has appeared in several collections of Mexican Orchidaceæ ; the specimen now figured was supplied by Geo. Barker, Esq. of Birmingham.

Like so many of the order this species varies a good deal in the amount of toothing observable in its lip. In the original specimens the divisions were perfectly entire; in the accompanying drawing they are represented as if they were all toothed. In a cultivated plant, now before me, they are both the one and the other.

The tubercles at the base of the lip are really three in number, not two as was at first supposed by me ; but the middle one is much smaller, and is hidden by the other two.

The species is not exclusively from Mexico. I have it also from Mr. Schomburgk (424), who found it in British Guayana, with a branched raceme, just as in the original specimens of Pavon.

The section SPATHIUM, to which this species is referred, is very near AMPHIGLOTTIUM, from which it is however distinguished by the branches not being excessively lengthened and covered with close pressed scales below the flowers. In their stead there is usually a long sheathing spathe, like that of Cattleya, out of which the inflorescence proceeds: occasionally there are several of such spathes, as in the present instance. The species with which I am acquainted, belonging to the section SPATHIUM are: 1. *E. raniferum*; 2. *nutans*; 3. *grandiflorum*; 4. *spathaceum*; 5. *adenoglossum*; 6. *ventricosum*; 7. *cornutum*; 8. *Trinitatis*; and 9. *armeniacum*, which is the Encyclia macrostachya of *Pöppig*. Of these the first, second, eighth and ninth are in cultivation.

This succeeds well in a pot amongst turfy peat, and should be liberally supplied with water during its period of growth. It will be found of easy management if cultivated in the cool orchidaceous stove. When the growing season is past, it does not require so much water, but should never at any time be kept too dry.

MORMŌDĒS lineātum.

Streaked Mormodes.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Vandeæ.
MORMODES. *Supra, vol.* 22. *fol.* 1861.

M. *lineatum* (Bateman in litt.); sepalis petalisque oblongo-linearibus abruptè acutis margine reflexis, labello lineari incurvo carnoso sparsim piloso versus basin utrinque dente nunc brevi nunc elongato aucto, columnæ dorso et margine pubescente. *Bot. Reg.* 1841, *misc. no.* 107.

This curious species is a native of Guatemala, whence it has been sent by both Mr. Skinner and Mr. Hartweg, who were attracted to its seat among the almost inaccessible branches of trees overhanging a deep stream, by its delicious fragrance. The flowers, when they first appeared, were dull olive green, and by no means handsome; they have since acquired a bright warm tint, and the markings upon them have increased in intensity till they have become quite ornamental.

The lip is variable in form; always indeed covered with long loose straggling hairs, but having its lateral lobes sometimes not more than half a line long, and occasionally as much as two lines. Fig. 1. represents the more usual appearance of this part.

One of the most striking features in the flowers of this genus consists in an appearance of distortion, which however is natural to them. In all it exists in the labellum and column, which look as if they had had their joints broken, and then unskilfully set again; in some it appears in the sepals as well; in Mormodes luxatum it is found in every part; the whole flower appearing as if all its limbs had been dislocated.

This is one of the species which ought not to be cultivated in a high temperature, but which succeed admirably in a house which is kept between a greenhouse and stove. In such a house it grows and flowers freely with very little care, if planted amongst turfy peat in a well-drained pot, or suspended from the rafters in a basket or forked block of wood. Great care must be taken of the young shoots, as they are very easily rotted with too much water, when they commence their growth. It is easily multiplied, as it forms numerous pseudo-bulbs on the sides and top of the old ones, as well as at their base.

The species of Mormodes now in our gardens are:

1. M. atropurpureum.
2. — aromaticum.
3. — pardinum (which seems to be the same as Cyclosia maculata of *Klotzsch*).
4. — buccinator.
5. — citrinum (which is Catasetum citrinum).
6. — lineatum.
7. — luxatum.

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BEGŌNĬĂ crassicaūlĭs.

Thick-stemmed Begonia.

MONŒCIA *POLYANDRIA.*

Nat. ord. Begoniaceæ.
BEGONIA. *Supra, vol.* 4. *fol.* 284.

B. *crassicaulis;* foliis hysteranthiis palmatis altè partitis laciniis acuminatis subpinnatifidis inciso-dentatis subtùs petioloque ferrugineo-pilosis, caule carnoso breviarticulato crasso inæquali, paniculis densis multifloris ferrugineo-pubescentibus, bracteis ovatis obtusis convexis floribusque disepalis glabris, sepalis rotundis, ovarii alis inæqualibus angulo superiore rotundato. *Supra misc. no.* 21.

A handsome species, introduced from Guatemala through the Horticultural Society from Mr. Hartweg. Like all the genus it is very easy to cultivate, requiring nothing more than a cool damp stove, and any sort of light peaty soil.

It has the singular property of producing its narrow panicles of white and pink flowers, without the leaves. In the month of February they appear in profusion upon rugged fleshy gouty stems, and the leaves are not formed till some weeks later. Each flower consists of two sepals only, which, being rounded and convex, give the appearance of a bivalve shell, or, when the flowers are unexpanded, the blossoms may be compared to clusters of fourpenny pieces.

The species is allied to Begonia heracleifolia, with which it much agrees in the form of the leaves; but in that species the flowers appear in cymose panicles on the end of long erect peduncles, and at the same time with the leaves. The angles of the fruit too are much less rounded off.

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BIGNŌNĬĂ pictă.

Painted Bignonia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Bignoniaceæ.
BIGNONIA. *Supra, vol.* 3. *fol.* 249.

B. picta; glabra, foliis simplicibus conjugatisque, foliolis oblongis et obovato-oblongis acutis subundulatis, pedunculis bifloris, calycis campanulati dentibus setaceis, corollæ lobis patentibus oblongis obtusis subundulatis venis violaceis pictis.

Frutex *scandens, cirrhosus, gracilis.* Folia 2-4 *poll. longa, chartacea.* Corollæ *violaceæ tubus ferè bipollicaris, limbus eodem ferè diametro.*

Probably a Buenos Ayrean plant, but of this there seems no certainty. All we know about it is that it is a beautiful climber, our drawing of which was made in the nursery of Messrs. Rollissons, in March last.

The large violet flowers, with deep rich purple veins, have a fine appearance, while the slender habit renders the plant particularly well suited for trellissing in a pot. For such purposes indeed a large part of this beautiful genus is perfectly adapted. People have no notion of the rich and varied colours, or of the graceful forms that are to be had among its many species, not to speak of the magnitude of their flowers. All the tropics contain them, and the attention of travellers in those countries should be particularly directed to sending home their seeds, which soon come up. Of novelties among them there is no end. At this moment there is a species before me from Melbury, Lord Ilchester's seat in Dorsetshire, which is quite as handsome as this Bignonia picta, only in another way; for it has numerous firm cream-coloured spotless flowers, with an equally slender mode of growth. In order that it may not be forgotten we propose for it the following name and character, viz.

B. Carolinæ; glabra, gracilis, foliis conjugatis, foliolis cordatis acuminatis subpubescentibus, paniculis terminalibus paucifloris, calyce campanulato truncato obsoletè 5-dentato pubescente, corollâ arcuatâ tomentosâ laciniis crispis patulis.

Bignonia picta itself is a handsome creeper, and is said to be as hardy as Bignonia capreolata, requiring the same treatment. Like all Bignonias it should have a strong rich loamy soil, for although they grow vigorously in light sandy or peaty soils, they never flower freely under such treatment, and occupy much more room both for their tops and roots to grow in. It is increased from seeds or cuttings of the half-ripened slender shoots, put in sand, and treated in the ordinary way.

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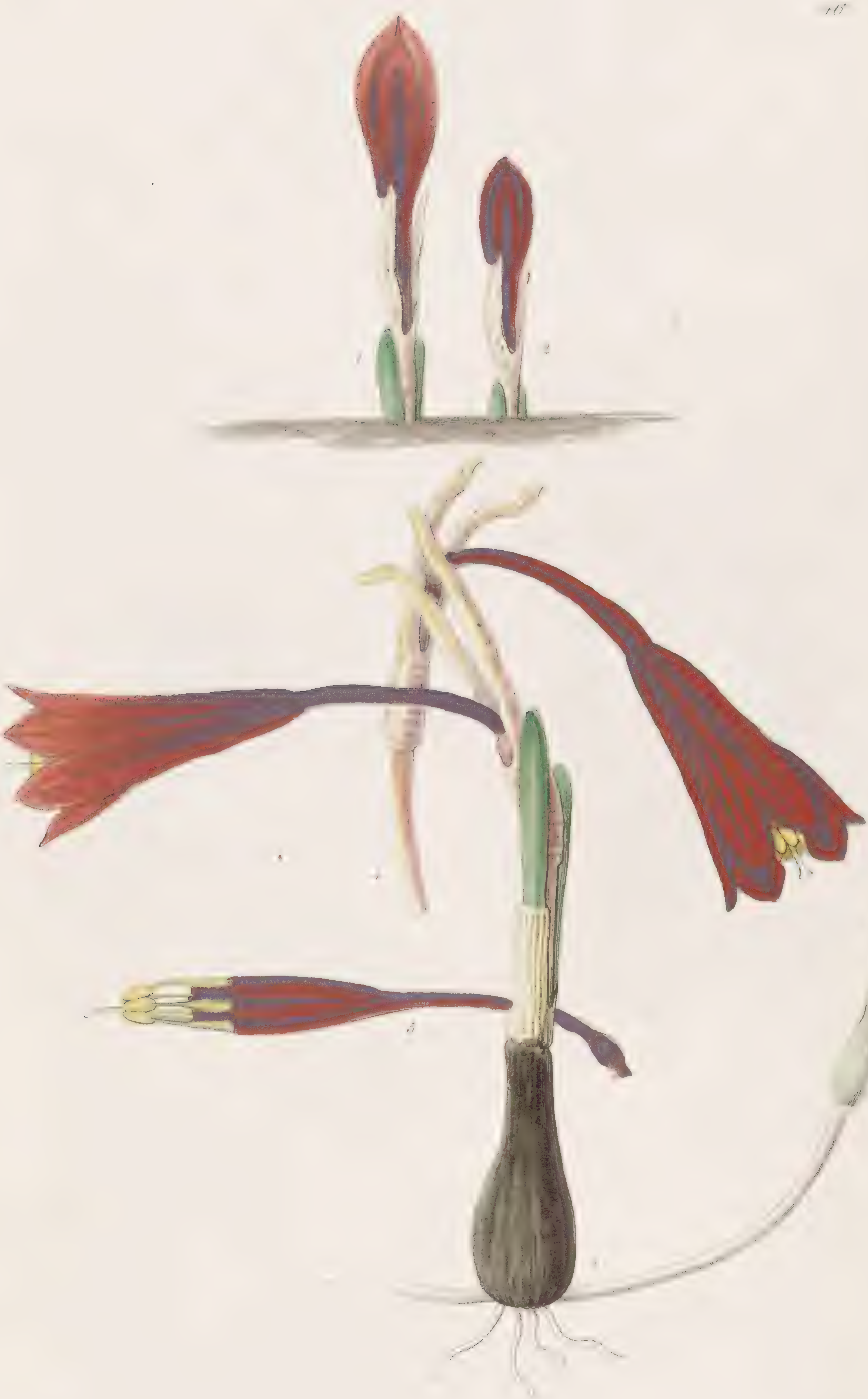

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COBŪRGĬĂ hŭmĭlĭs.

Humble Coburg-lily.

HEXANDRIA *MONOGYNIA.*

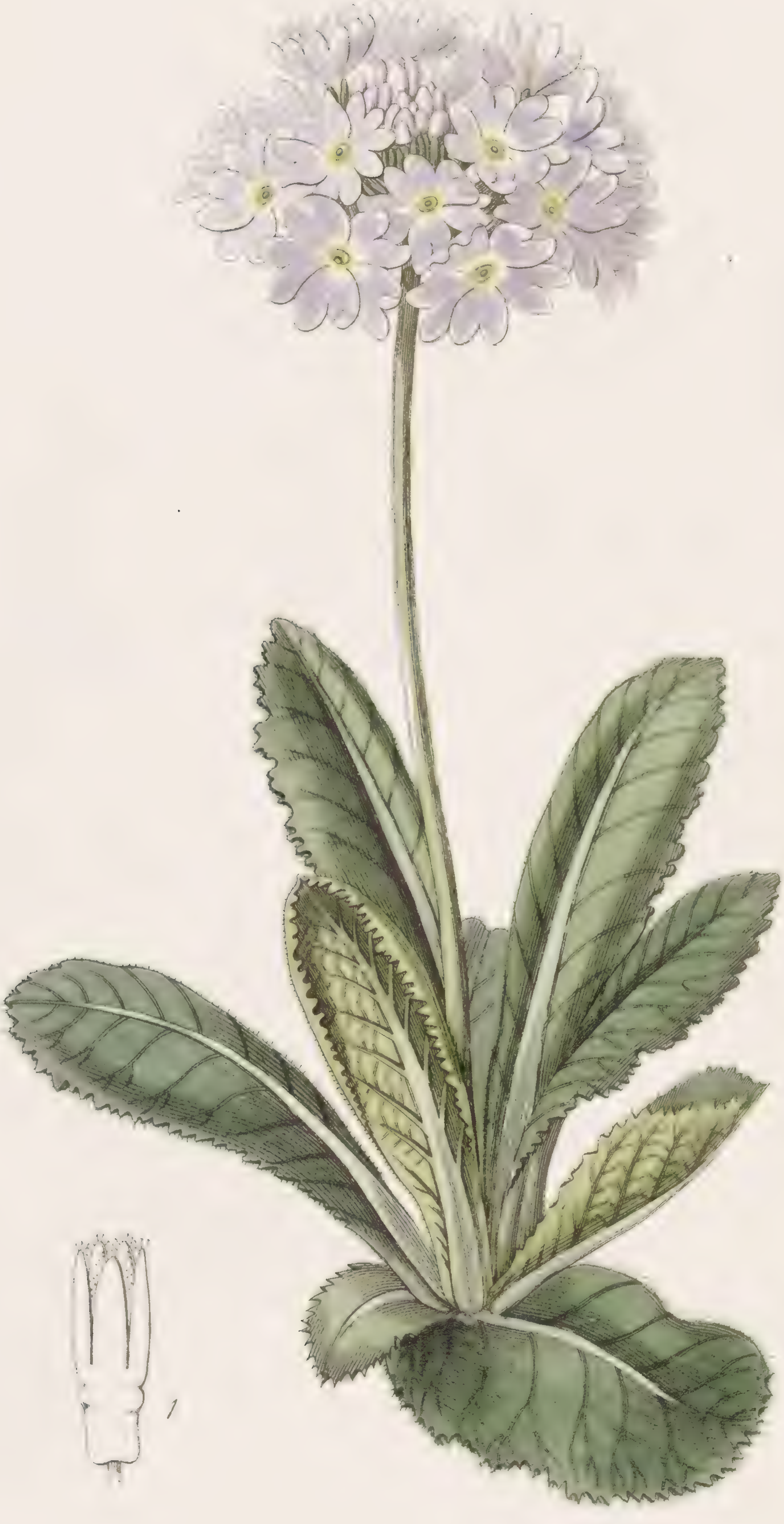
Nat. ord. AMARYLLIDACEÆ, *Sub.-ord.* AMARYLLIDEÆ, § PANCRATIFORMES.

COBURGIA. Bot. Reg. vol. 18. *fol.* 1497.

C. humilis; bulbo parvo ovato stolonifero collo producto, foliis viridibus glabris nitentibus subacutis subcanaliculatis subpedalibus circiter $\frac{1}{8}$ unc. latis, scapo unifloro pedunculo et spathæ parte inferiore vaginis subterraneis ortu primo latentibus dein liberis, germine oblongo $\frac{3}{16}$ unc. perianthio subtriunciali coccineo concolore tubo subbiunciali inferne gracili cylindrico superne ampliato, sepalorum tubo coalitorum marginibus imbricantibus, limbo circ. $\frac{3}{4}$ unc. semipatente coronâ circ. $\frac{3}{16}$ unc. filamentis $\frac{3}{16}$ unc. conniventibus stylo limbum æquante brevioribus, capsulâ profundè trilobâ inferne latiore, seminibus subcomplanatis nigris margine foliaceo. *Ex Palcamayo Peruviæ.* W. H.

Clitanthes humilis. *Supra* 25. *misc.* 141.

This very singular and pretty little plant was found by J. Maclean, Esq. near Palcamayo, on the Peruvian Andes, at an elevation of 10,284 feet, in a quarter where there were many wild bulbs, and wheat and potatoes were cultivated. The dry specimens, which accompanied the bulbs, had been gathered in the early erect state represented at No. 1 and 2, No. 2 being the earliest. The flower was supposed to be perfect and erect, and the species described as Clitanthes (25. Misc. 141) were believed to agree in that respect, which proves not to be the case. The flower of C. humilis bends downwards, as it advances, after the germen and scape, which were at first underground, have acquired their full elongation, and it rises daily and falls at night, and hangs so far down over the edge of the pot, that its limb must be firmly pressed against the ground, unless, as seems probable, it grows naturally on steep banks. C. Macleanica, a taller one-flowered species, connects this plant with C. lutea, which was originally named Clinanthus luteus (Herb. App.) from the sloping posture of the flower in the original dry specimen of Ruiz, who did not describe it. Mr. Sweet afterwards removed the lapsed name Coburgia (which had been used in the App.) to P. incarnatum of Humboldt, and as the knowledge of these plants was very imperfect, it was not thought advisable to disturb what he had done, especially as Mr. Maclean's dry specimens gave reason (though, as it proves, erroneously) to believe that C. lutea, Macleanica, and humilis, had the perianth erect; but, if our knowledge had then been such as it is now, the appropriate name Clinanthus should have been continued to the whole genus which is now generally known as Coburgia; but it is not desirable after its reception to return to the name originally proposed. C. humilis flowered at Spofforth in March and April, 1842, and perfected its seed. All Coburgias like a strong rich soil.—W. H.



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PRĪMŬLĀ denticulātă.

Tooth-letted Primrose.

PENTANDRIA *MONOGYNIA.*

Nat. ord. PRIMULACEÆ.
PRIMULA. *Supra vol.* 7, *fol.* 539.

P. *denticulata;* foliis obovato-lanceolatis pubescentibus rugosis inæqualiter denticulatis margine reflexis, floribus densè umbellatis, limbo corollæ plano: lobis bilobis, calycis glabri dentibus linearibus erectis glanduloso-ciliatis.
P. denticulata. *Smith Exot. Bot.* 2. 109. *t.* 114. *Römer & Schultes syst. veg.* 4. 151.

" Ornamental as are all the known Primulaceæ," says Dr. Royle in his valuable Illustrations of the Botany of the Himalayan Mountains,* "they are no where more so than on the coldest and most exposed of the Himalayan peaks, and at a season when returning warmth has just begun to displace the season of wintry desolation." In another place he informs us that the genera Primula and Androsace have a wide distribution, sending a few species towards the foot of the mountains, and others towards the highest points of vegetation. Thus Primula has one species, P. floribunda, at as low an elevation as 5000 feet; but at higher elevations, as in the ascent to Choor in the earliest spring, and when the snow has just begun to melt from the neighbourhood of stones and trees, or from situations exposed to the full influence of the solar rays, we find in full and luxuriant flower this *Primula denticulata,* and another called P. petiolaris. On still loftier situations, as Gossainthan, Kedurkanta, and some of the passes, we find Pr. Stuartii, with its rich yellow glow, by the side of the equally beautiful Pr. purpurea.

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* We are glad to see that a re-issue of this important work, in numbers, is announced by the proprietors.

The accompanying figure represents the appearance of the plant in a pot, as it flowered last spring in a frame in the garden of the Horticultural Society, and it agrees with the stature of the wild specimens from Nepal and Kamaon now before me. But I find the leaves of a plant on some rockwork in a northern aspect are already a foot long, and it is therefore to be anticipated that a far more vigorous vegetation will be manifested by it. It is certainly quite hardy.

In Rœmer and Schultes's System of Plants this species is said to be a native of high mountains on the coast of Chillongo in Africa, a most extraordinary error.

It requires a rich loamy soil and a dry situation. It is easily increased, either by dividing the old plants when in a dormant state, or by seeds which should be sown in pans, filled with light rich soil about a quarter of an inch deep. In May they will be fit for potting off singly into small pots, and eventually they may be planted in the open border, care being taken to select for them a rather dry situation. They suffer more from wet than cold during the winter. The plant flowers during the months of March and April; the seedlings will not flower the first season.

48

VĀNDĂ cristātă.

Crested Vanda.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § VANDEÆ.
VANDA. *Supra vol.* 6. *fol.* 506.

V. *cristata;* foliis canaliculatis recurvis apice truncatis obliquè excisis tridentatis, racemo erecto trifloro foliis breviore, sepalis oblongis obtusis fornicatis, petalis angustioribus incurvis, labelli lobis lateralibus brevibus acutis intermedio vittato oblongo convexo apice saccato inæqualiter tricorni, cornu brevi conico.

V. cristata. *Lindl. in Wall. cat. no.* 7328. *Gen. & Sp. Orch. no.* 9. *Sertum Orchiduceum, f.* 3. *in fronte.*

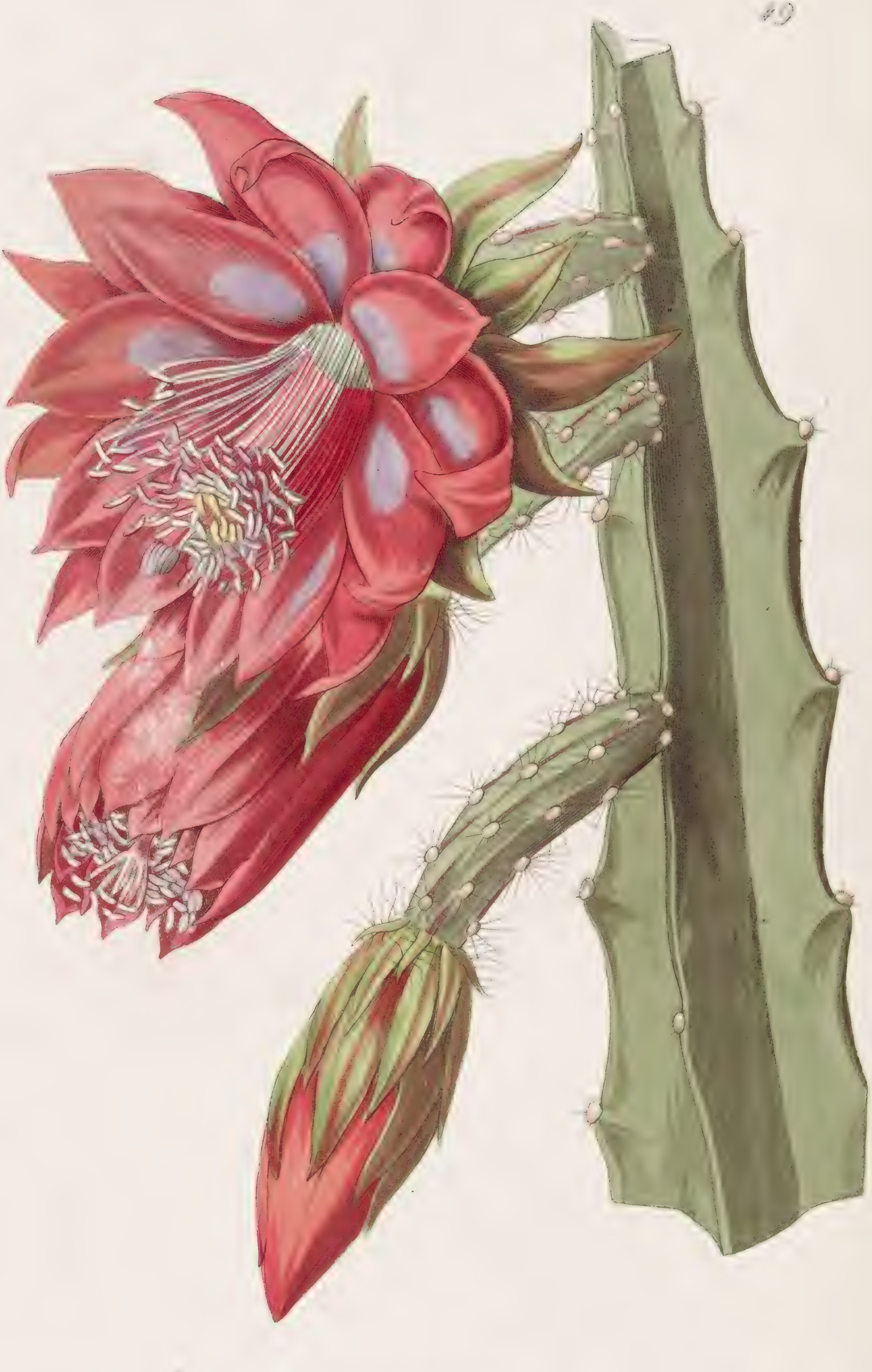
Surculus *crassitie digiti minimi, fere subsimplex, inferiori parte emittens ad latera fibras teretes crassas carnosas cortici arborum more* Vandæ Roxburghii *adhærentibus; huicque cæterùm planta habitu foliis et surculo simillima.* Folia *rigida, disticha, patentia, basi alternatìm imbricantia, nitida, canaliculata subtùs carinata marginibus acutissimis glaberrimis, apice truncata et obliquè 3-dentata,* 5-6 *pollicaria $\frac{1}{3}$-pollicem lata.* Racemi *axillares, solitarii, (plures 3-4 ex eâdem plantâ, axillis alternis) vix folia superantes pauciflori.* Pedunculi *carnosi 2-3-pollicares, teretes, indivisi; basi bracteis vaginantibus truncatis aliquot.* Flos *magnus, carnosus, viridiflorus, labello maximo purpureo.* Peranthii *foliola crassa, lanceolata, patentia, obtusiuscula, $\frac{1}{2}$ pollicaria, sub distincta; lateralia exteriora, infra insertionem labelli basi columnæ brevissimè productæ adnata, omnia patentia, demùm āntica erecta cætera depressa; interiora sublinearia.* Labellum *crassissimum, basi saccatum et productum in cornu acutiusculum basi columnæ incrassatæ adnatum.* Faux *utrinque lobulo ovato obtuso recto.* Lamina *oblonga, porrecta, apice subtus cornu conico solido brevi suprà cristâ s. margine transversali elongatâ, in processus 3. v. 4 cylindricas abeunte irregulares; suprà verrucoso-lineata.* Columna *brevissima, crassa, conica.* Anthera *terminalis, subtùs bilocularis, loculis distinctis remotis.* Massæ *duæ, globosæ, posticè bilobæ, umbilico apicis columnæ adfixæ ope membranulæ solubilis, filo valde elastico connexæ.* Ovarium *longum, 6 angulare, angulis carinatis prominentibus.*——Obs. *Flos exquisitæ pulchritudinis.* Labelli *consistentia crassissima; color atropurpureus, præcipuè intus, ut etiam holosericeus.* Wallich MSS.

An epiphyte, with the habit of Vanda Roxburghii, found in 1818 on trees in Nepal, by Dr. Wallich, flowering in the month of April. He describes it in a manuscript memo-

randum now before me as a flower of exquisite beauty. It however hardly deserves so much praise, because, notwithstanding its rich marking and velvety surface, its flowers are too small and dull coloured.

The specimen now figured flowered with Messrs. Rollissons in March last.

It succeeds well when grown at the warmest and dampest end of the Orchidaceous stove, and may be fastened on a block of wood, or placed in a basket and suspended from the rafters. In either case it ought to be well supplied with water. A quantity of bog moss put round the block or in the basket will be found very useful in keeping the plant in a vigorous and healthy state. Its general treatment should be the same as is given to such things as Aërides and Saccolabiums.



SMALL-FLOWERED SHEW-CEREUS.

Garden Variety.

May we be permitted, in the first place, to propose for the long Latin words Cereus speciosissimus the more English, though not quite English, term of Shew-Cereus ; a name, in the first place, nearly a translation of the Latin, and secondly characteristic of the purposes to which this beautiful species is so generally applied.

As for the plant now figured, it was sent up from Bury Hill, by Mr. Scott, gardener to Charles Barclay, Esq., as the species called Cereus coccineus. Now there are two plants so called by Botanists : one a variety of Cereus setaceus, with *white* flowers, and the other a plant with from four to eight long bristles in each of its tufts of spines, and scarlet flowers six inches in diameter, with a little stain of blue on the *edges* (not middle) of the petals.

It is evident then that this is neither of the plants intended under the name of C. coccineus. It is, in fact, some garden variety of the Shew-Cereus, with smaller flowers than usual. It is a distinct and pretty variety worth cultivation.

It is a greenhouse plant requiring the same treatment as the Shew-Cereus itself. Formerly such plants were grown in the poorest soil, such as old lime and brick rubbish, but it is now well known that they do far better in a much richer compost. Equal parts of rich loam, sandy peat, and dung, well mixed together, seem to suit them admirably. The principal point to be attended to in their management is, to supply them freely with water when growing in the summer, and then to place them out in a warm part of the garden in the autumn, fully exposed to the sun. They should be taken into the greenhouse before the weather gets too wet and cold, and kept rather dry during the winter. The present species strikes readily from cuttings treated in the usual way.

September, 1842.

1

EPIDĒNDRŬM lancifŏlĭŭm.

Lance-leaved Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § EPIDENDREÆ.
EPIDENDRUM. Supra 1838. *fol.* 53.

E. lancifolium. *Lindl. Gen. & Sp. Orch. p.* 98.

This plant, which has so much the habit of E. cochleatum, is readily known by its regularly ovate sharp-pointed lip, which is streaked with deep purple radiating lines upon a pale yellow ground.

It is one of that section of Epidendrum to which I have elsewhere proposed the name of Osmophytum, in allusion to the fragrance of many of the species, a quality in which this also slightly participates. It consists of those species which have an oval or fusiform pseudo-bulb, bearing a few leaves at the point, racemose flowers, and a lip united firmly to the column, usually shell-shaped, and rarely lobed. Below is an enumeration of such species of the section as I am at present acquainted with.

Any one who can grow the old Epidendrum cochleatum, or fragrans, can easily manage this with similar treatment. It should be kept in a cool stove along with other plants of like habits, many of which have been lately imported from the high land of Mexico and Guatemala. It grows well amongst brown turfy peat in a pot which is well drained, and may be watered and syringed freely during its period of growth, and at no time kept too dry.

OSMOPHYTUM. Caulis pseudobulbosus v. fusiformis apice foliosus. Flores racemosi. Labellum adnatum sæpiùs indivisum et cochleatum. *Lindl. in Hook. Journ.* 3. 81.

1. E. *cochleatum* (Linn. L. p. 97.); foliis in pseudobulbos ovales geminatim insidentibus oblongis acuminatis subundulatis, sepalis petalisque paulò angustioribus lineari-lanceolatis reflexis, labello cordato cochleato subrotundo, columnâ brevissimâ.——*West Indies.*——There are two varieties of this common plant; one with much paler flowers than the other.

2. E. *bracteolatum* (Presl. L. p. 98.); pseudobulbis sulcatis, foliis oblongo-lanceolatis obtusis, scapo tereti simplici, sepalis petalisque lanceolatis patentibus, labello obcordato obtuso crenulato basi cristato.——*Guayaquil.*

3. E. *lancifolium* (Pavon. L. p. 98. Bot. Reg 1842. t. 50.); pseudobulbis elongatis teretibus, foliis oblongo-lanceolatis acutiusculis, racemo stricto terminali, sepalis petalisque lanceolatis acuminatis reflexis, labello cordato oblato-ovato cochleato.——*Mexico.*

4. E. *radiatum* (Lindl. in Bot. Reg. misc. 1841. no. 123.); pseudobulbis ovatis compressis utrinque tricostatis triphyllis, foliis angustis elongatis acutis, racemo denso multifloro, ovariis trialatis, sepalis linearibus petalisque lanceolatis patentissimis, labello cochleato crenato crispo, clinandrio trilobo laciniis lateralibus erectis carnosis intermediâ truncatâ apice serratâ.——*Mexico.*——Allied to E. cochleatum; it has the same habit, but the pseudobulbs are strongly ribbed at the side, and the lip has the margin crisp and crenated. The flowers are pale pea-green, with the exception of the lip, which is striated with bright deeper purple rays.

5. E. *venosum* (L. p. 99.); pseudobulbis angustis fusiformibus, foliis ensiformibus scapi longitudine, racemo 4-5-floro, sepalis lineari-lanceolatis petalisque angustioribus patentissimis, labello semilibero tripartito: laciniis lateralibus ovatis acutis intermediâ subrotundâ apiculatâ multò majore, callo baseos lineisque tribus disci subramosis elevatis.——*Mexico.*——Lip white, with raised violet veins.

6. E. *fragrans* (Swartz. L. p. 97.); foliis in pseudobulbum angustum fusiforme (sæpiùs) solitariis lanceolatis apice recurvis, scapo folio breviore, sepalis lineari-lanceolatis petalisque ovato-lanceolatis acuminatis patentibus, labello subrotundo cuspidato lineato integerrimo.——*Tropical America* everywhere.——This plant is extremely variable; and occurs in almost all collections from the east coast of the American Tropic. Possibly the Brasilian form, of which Gardner's 624 is an example, may be a distinct species.

7. E. *æmulum* (Lindl. in Bot. Reg. t. 1898.); rhizomate repente, pseudobulbis ovalibus compressis, foliis solitariis oblongo-lanceolatis coriaceis, sepalis petalisque lineari-lanceolatis æqualibus patentibus, labello subrotundo mucronato cochleato lineato integerrimo.——*Para.*——A dwarfer plant than E. fragrans, from which it is also distinguished by the form of its pseudobulbs, its more leathery leaves, and its petals the same width as the sepals.

8. E. *glumaceum* (Lindl. in Bot. Reg. 1839. misc. no. 50. 1840. t. 6.); pseudobulbis ovatis apice angustatis diphyllis, foliis angustè oblongis patentibus, racemo terminali cylindraceo e squamis glumaceis acuminatissimis

pedunculo longioribus erumpente, sepalis linearibus petalisque lineari-lanceolatis acuminatissimis, labello obovato acuminato convexo integerrimo basi unicalloso.——*Brazil.*——This has the habit and sweet odour of E. fragrans, from which it differs in the colour of its flowers, in the long tapering figure of the flower-buds, which is caused by the peculiar form of the sepals and petals, and in the shape of the labellum, which is convex not concave, obovate, and delicately striped with pink at its base.

9. E. *inversum* (Lindl. in Bot. Reg. 1839. misc. 135.); pseudobulbis elongatis compressis, foliis loratis canaliculatis obtusis, spicâ terminali sub-6-florâ bracteis brevibus ovatis acuminatis, ovario triquetro, sepalis petalisque patentibus lineari-lanceolatis convexis subæqualibus, labello adnato oblongo acuminato basi convexo ecalloso, columnâ obtusè 3-dentatâ, antheræ cardinis appendice oblongâ denticulatâ.——*Brazil.*——Nearly related to E. fragrans. The flowers are straw-coloured, with a few purple streaks on the column and at the base of the lip, and have a heavy not very pleasant smell, something like that of Ground-ivy (*Glechoma*).

10. E. *variegatum* (Hooker Bot. Mag. t. 3151. Bot. Reg. 1839. t. 11. E. *coriaceum*, Bot. Mag. t. 3595. E. *crassilabium*, Pöppig and Endlich. nov. gen. &c. 2. 1. t. 102.); pseudobulbis fusiformibus compressis subdiphyllis, foliis oblongo-lanceolatis obtusis, racemo multifloro, sepalis petalisque subrotundo-obovatis coriaceis obtusis, labello subrotundo brevissimo acuto intùs sub columnâ pubescente : callo baseos concavo carnoso, dente columnæ postico obtuso.——*Brazil, Peru.*——A variable plant, readily known by its very short lip, on the base of which is placed a large concave callus, which presses against the column and gives the lip the appearance of being divided horizontally into two layers. On very strong specimens there are occasionally three or four leaves on a pseudobulb.

11. E. *lividum* (Lindl. in Bot. Reg. 1838. misc. 91.); pseudobulbis angustè ovalibus compressis diphyllis, foliis lineari-lanceolatis subundulatis obtusiusculis, scapo terminali paucifloro foliis breviore, ovario triquetro, sepalis erectis herbaceis linearibus mucronatis, petalis spathulatis obtusis æquilongis, labello libero lineari-oblongo obtuso crispo medio tomentoso serie triplici dentium elevatorum intermediâ majore, columnâ triquetrâ apice tricallosâ. ——*Columbia.*——Flowers small, dull dingy-purple, a little tessellated; their lip, pale dirty-yellow, with a few dull purple veins.

12. E. *calamarium* (Lindl. in Bot. Reg. 1838. misc. 163.) pseudobulbis teretibus calamiformibus diphyllis, foliis linearibus planis abruptè acutis, racemo simplici erecto, bracteis squamiformibus acuminatis, sepalis patentissimis linearibus acutis apice recurvis, petalis angustioribus subspathulatis, labello postico subrotundo acuto convexo.——*Brazil.* ——Flowers pale, whole coloured, yellowish-green, with five small violet spots at the base of the lip. Not fragrant.

31

PHARBĪTĬS ostrīnă.

Royal Purple Gaybine.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ.

PHARBITIS. *Botanical Register, vol.* 23. *fol.* 1983.

P. *ostrina;* radice tuberosâ, foliis hastatis tripartitis glabris subtùs glaucescentibus; lobis ovatis obtusè acuminatis, pedunculis 3-4-floris petiolis duplò brevioribus, sepalis glabris obtusissimis, corollâ infundibulari limbo plano obsoletè decemlobo rotundato.

This fine plant is referred to the genus Pharbitis, on account of its three-celled ovary, with two ovules in each cell; but it has all the habit of a Batatas.

It is a very beautiful climber; obtained last year by Messrs. Loddiges from Cuba. The roots are large and tuberous; the stem perishing every winter, but growing out rapidly in the spring to the length of twenty feet or more, and producing abundance of blossoms.

All these fleshy-rooted Bines are of the easiest culture. They should be grown in a mixture of good sandy loam and leaf-mould, to which may be added a small portion of sandy peat if the loam is strong.

They require plenty of room for their tops, and should be freely supplied with moisture, both overhead and to the roots, during the growing season; but when the plant has done flowering, moisture should be gradually withheld, until the soil in the pots becomes dry. Then the roots should be removed from the soil, and be placed either in paper or in very dry sand, for a month or two.

As the season returns they must be again potted; receiving little water at first, but plenty of heat to start them. They are easily increased from cuttings of the young shoots.

G. incisum

GERĂNĬŪM eriānthūm.

Woolly-flowered Geranium.

MONODELPHIA *DECANDRIA.*

Nat. ord. GERANIACEÆ.
GERANIUM. *Bot. Reg.* 1839. *fol.* 10.

G. *erianthum;* perenne, undique molliter pubescens, pilis patulis glandulosis, foliis omnibus petiolatis palmato-5-7-lobis, lobis trilobis rhombeo-cuneatis, laciniis incisis acutis, pedunculis confertis florum longitudine, calycibus villosis petalis cuneatis basi undique barbatis brevioribus, filamentis pilosiusculis.
G. erianthum. *DeCand. Prodr.* 1. 641.

A robust hardy perennial, of easy culture, growing from one to two feet high, in any good garden soil. It flowers freely during the months of June and July, and is easily increased by dividing the old plant when in a state of rest, or by seeds; the seeds should be sown directly they are ripe, and then they will flower the following season.

It was raised in the Garden of the Horticultural Society, from seeds received from the late Mr. Moreton Dyer, from North-west America.

Although the hardy herbaceous Geraniums are not much cultivated, yet some of the species are among the handsomest and best of that class; easy to preserve, and highly ornamental to the flower beds, or to rough rocky places where their somewhat formal bushy mode of growth is destroyed. To name G. ibericum, striatum, pratense, sylvaticum, eriostemon, vlassovianum, palustre, and this erianthum, is to give a catalogue of beautiful hardy plants.

Such of them as are found in our gardens are however badly named, and even in books there is no little confusion regarding them, of which this is a notable example.

September, 1842.

It is a native of the North-west of America, and Kamtchatka; and from specimens collected there it was originally described by DeCandolle, who placed it near the Dahurian G. eriostemon, a very distinct plant with long stiff white hairs all over the lower part of the filaments, and the base of the petals furred at the margin.

But Drs. Torrey and Gray, in their Flora of North America, in the first place combined, with a quære, the two species last mentioned, and assigned to G. erianthum a furred margin to the petals, which is the character of G. eriostemon and not of G. erianthum; so that it is probable that their G. erianthum is really G. eriostemon. In the next place these authors also refer with doubt to their G. erianthum, a plant gathered by Douglas in North-west America, which Sir W. Hooker regarded as a downy variety of G. maculatum. That plant, which is now before me, is however neither the one nor the other; it has the furred margin of the petals characteristic of G. eriostemon, but it wants the long stiff hairs on the stamens of that plant, and it has a different habit; agreeing with it however in the hairs which clothe its stem being reflexed.

Upon looking into Steudel I find that compiler referring G. albiflorum of Hooker to G. erianthum, although the former is quite another species, with smooth calyxes; but he states that G. albiflorum of Hooker is not the same as the plant so named by Ledebour. I find, however, that Drs. Torrey and Gray (vol. 1. p. 678) regard those two as the same species, and would cancel the name G. Richardsonii given by Fischer and Meyer to the North-west American plant. Upon this point I will only observe that in G. albiflorum the leaves are usually divided in a shallow way into five lobes, that the calyx is quite smooth, the petals no longer than the sepals, and hairy at the edges only, or very slightly on the surface; while in G. Richardsonii the leaves are mostly cut into three deep partitions, the calyx is glandular, and the petals much longer than the sepals, with their edge and surface equally hairy.

23

[illegible] [illegible] [illegible]

PLANT'S ANISANTH.

Garden Variety.

This beautiful plant is a mule obtained by Mr. Plant, Nurseryman, Cheadle, from whom specimens were received in September, 1841, with the following note.

"It originated here, and bloomed for the first time in 1838. It is the produce of seed from Anisanthus splendens and Gladiolus Colvillii, the latter, as you know, itself an hybrid. The present one is, as far as my humble abilities will allow me to judge, exactly intermediate betwixt the two parents; the bulb is also intermediate, being entirely wanting in that peculiar mode of increase which obtains in Anisanthus splendens—I mean by means of tubers, or in the manner of potatoes—a fact which Sweet has taken no notice of in establishing the genus Anisanthus. In the practice of hybridizing we know but little yet. Would you believe that I have some seedlings between Gladiolus and Amaryllis? I have this day taken the roots up, some of which present a most curious appearance; neither bulbs nor scales, but something of both."

Here is not only a fine addition to flowering plants, but abundant subject for consideration. In the first place we have a mule between two different genera; for, although the Anisanths and Corn-Flags are only distinguished by the extreme obliquity of the flower of the former and their peculiar mode of propagation, and are consequently regarded by many Botanists as separated upon insufficient grounds, yet it must be confessed that their differences are fully as great as in other cases are admitted as good marks of genera.

But supposing the Anisanths and Corn-Flags to be of the same genus, at least there is this remarkable in the history of this plant, that one of its parents is itself a mule.

What, however, are we to say of Mr. Plant's observation as to his having crossed the Corn-Flag and Amaryllis? We should once have thought such a thing impossible, but every day is bringing forward such startling facts regarding vegetable fertilization, that for our own parts we are prepared to expect a cross between an Oak and a Spanish Chesnut, or any other seemingly impossible production.

This is a greenhouse, bulbous plant, requiring the same treatment as Antholyzas, Cape Gladioli, or Ixias. It thrives best when potted in a mixture of sandy loam, leaf-mould, and a little peat.

The roots should be potted about October, and set in a cool close frame. (where they are secure from mice and frost), till they have filled the pots with roots; afterwards they should be removed to a warmer situation to flower. After they have done flowering, they should be gradually rested by withholding water, and finally the roots should be removed from the soil, which is much better and safer than to allow them to remain in the pots, for they always start much better the next season.

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Drake del. Pub by Ridgway 169 Piccadilly Sep.r 1 1842. G. Barclay sc.

ONCĪDĬŪM urophȳllūm.

Tail-leaved Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ.
ONCIDIUM. *Bot. Reg. vol.* 10. *fol.* 804.

SECTION * * *Folia equitantia.*

O. *urophyllum* (Lodd. cat. ed. 2. no. 1381. Sertum Orchid. sub tab. 48.); foliis equitantibus margine plano apice acutissimis, scapo longo pendulo paniculato, sepalis linearibus acuminatis lateralibus ad apicem ferè connatis, petalis obovato-subrotundis apiculatis, labelli lobis lateralibus brevibus convexis obtusis intermedio unguiculato reniformi emarginato, cristæ tuberculis duobus uno ante alterum trilobis, columnæ alis maximis acinaciformibus rotundatis.

This is really a charming species of Oncidium, with quite a peculiar habit. Its leaves are shaped like a pen-knife curved backwards, so as to have the edge on the convex side. This is caused by the two sides of the leaf being brought into contact, and then growing together, the back of the knife-shaped leaf consisting of their edges. From this structure to the rush-leaved species, such as *O. Cebolleta,* is but a step.

Such species constitute a distinct section of the genus, consisting of the following seven; viz. *O. iridifolium, urophyllum, triquetrum, pulchellum, Lemonianum, variegatum,* and *tetrapetalum,* all of which are, or lately have been, in cultivation.

That now figured has a graceful drooping panicle of clear yellow flowers, four feet long, almost white at the back, and with a few crimson stains near the centre on the upper side. It was imported from Brazil by Messrs. Loddiges, and flowered with them in March, 1841.

Fig. 1. represents a flower, enlarged and seen in full face; 2. is the same in profile.

It requires a damp stove in cultivation. It may be suspended from the rafters in a basket, or on a block of wood, and planted in brown turfy peat; or it may be grown successfully in a pot if it is well drained. In either case the greatest care must be exercised in watering it, particularly when it commences its growth, for the young shoots at this stage are easily rotted.

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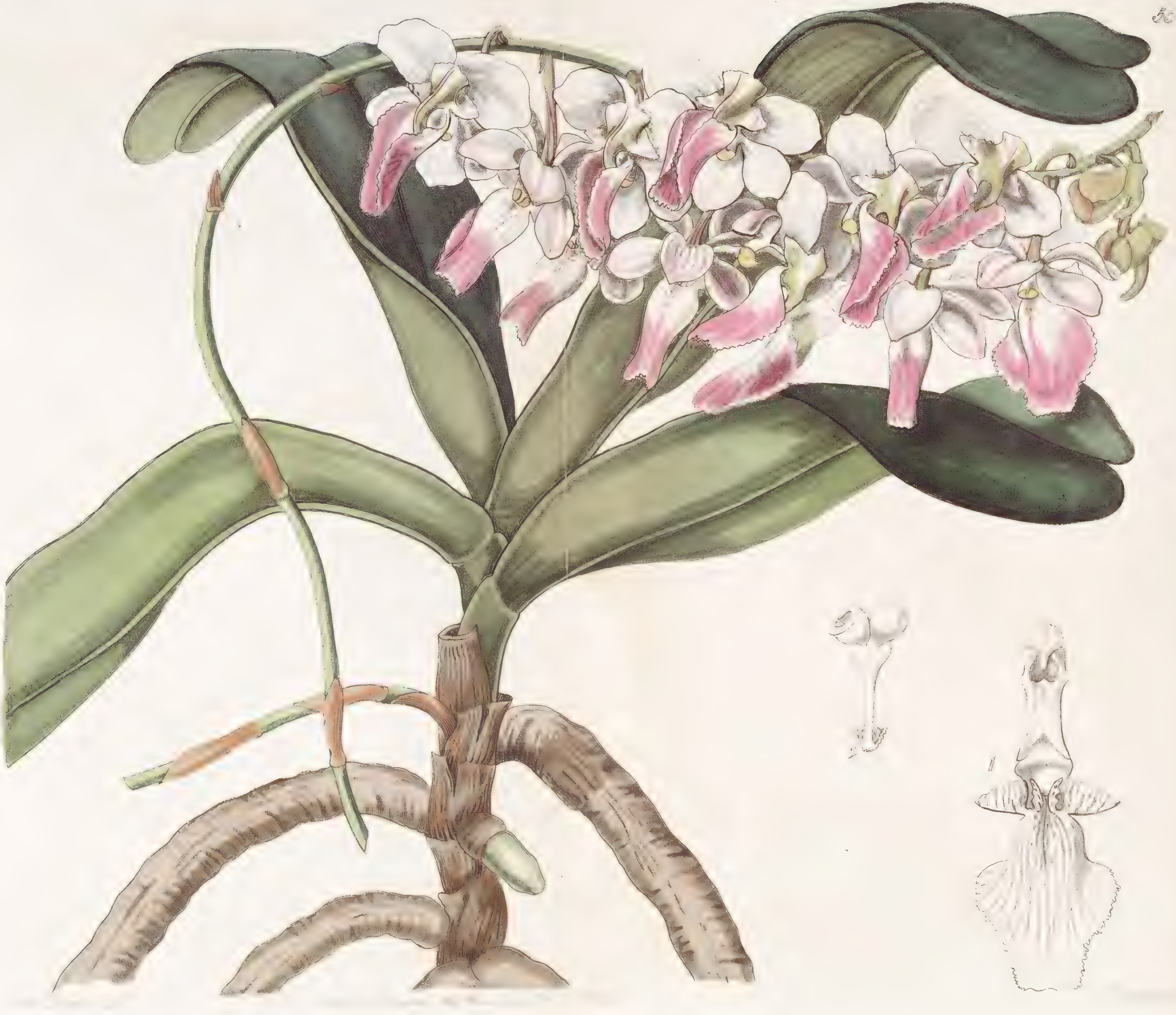

55

AĔRĬDĔS crīspūm.

Sir Richard Brooke's Air plant.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ § Vandeæ.

AERIDES. *Bot. Reg. vol.* 18. *fol.* 1485.

A. crispum; foliis planis apice obtusis obliquis bilobis racemis multifloris nutantibus duplò brevioribus, sepalis petalisque subæqualibus obtusis, labelli maximi laciniâ intermediâ multò majore ovatâ retusâ serrulatâ retusâ basi bidentatâ lateralibus erectis acutis nanis, calcare cornuto incurvo.

A. crispum. *Lindl in Wall. cat. no.* 7319. *Gen. & Sp. Orch. no.* 6.
A. Brookei. *Bateman in Bot. Reg.* 1841, *misc.* 116.

"This most beautiful species has lately flowered in the collection of Sir Richard Brooke, Bart., of Norton Priory, after whom I have ventured to name it. In the magnitude of its blossoms it infinitely surpasses any other species with which I am acquainted, the lip alone being upwards of an inch long, beautifully tipped with rose-colour. The other parts of the flower are of brilliant white. In the form of the labellum the species slightly resembles Aërides affine, but it is nevertheless so entirely distinct in other respects that it is unnecessary to contrast the species. In its habit it is stiff and erect, the leaves being only five inches long, while the racemes are more than double the length. Mr. Jones, the skilful gardener at Norton, is unfortunately unable to give me any account of the native country of the plant, but it doubtless comes from the 'gorgeous east.' I am not aware of its existing in any other collection."

Such was the account given by Mr. Bateman of this lovely plant when it was first discovered in this country. At that time he supposed it to be new, and dedicated it to Sir Richard Brooke. I regret however to state that a beautiful specimen, for which I am indebted to Mr. Bateman, proved to be nothing more than A. crispum, a native of Courtallum, a small valley near the southern point of the Peninsula of India.

It is certainly one of the finest of its race, and worthy of a place in all collections of merit. Very few discrepancies are found between it and the published character of A. crispum, and they are only such as are usual when plants are described from dried specimens.

Fig. 1. represents the column and labellum; 2. shews the pollen-masses.

In cultivation it requires a hot and damp stove. When suspended upon a block of wood, or in a copper wire basket, from the rafters, it will grow luxuriantly with very little care, provided it is well supplied with water. If there is a cistern in the house it ought to be hung above it, as it evidently likes the moisture which is continually evaporating from such a place. When not in a growing state less water should be given than at other times, but it should never be kept too dry.

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DOUBLE RED AZALEA INDIA.

The beauty of the Azaleas, which, although Chinese, are called Indian, is too well known to the Garden-lovers of England to require explanation. Their endless variety, their brilliant colours, delicate texture, and profuse blooming, place them at the head of all the races of cultivated plants. Most of them are however single, and in our opinion that is no small merit; for a double flower is rarely handsome unless when the additional parts are arranged with the most perfect symmetry.

Such is not the case with this double red, the flowers of which are large and splendidly coloured, but very deficient in beauty of form. It is however rare, and quite a distinct kind; two circumstances that give it value in the eyes of a collector.

It is of Chinese origin: but is not enumerated by Kæmpfer. Our figure was taken from a fine plant in the possession of William Wells, Esq., of Redleaf.

Like other kinds it strikes readily from cuttings, or it may be worked upon the more common varieties. When rooted the young plants ought to be potted off in rich peat soil, having mixed with it a considerable portion of sand. It requires the protection of a greenhouse during winter, and should then be placed in the lightest situation, but if it is kept there in summer it ought to be partially shaded; it will however do very well then out of doors. When it is growing freely manure water will be found very beneficial.

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INDIGŎFĔRĂ Dŏsŭă.

The Dosua Indigo.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ.
INDIGOFERA. Bot. Reg. vol. 2. fol. 104.

I. *Dosua;* caule fruticoso, foliis pinnatis 10-16-jugis, foliolis ovalibus retusis mucronulatis utrinque ramulisque densè rufescenti-pilosis, spicis axillaribus folio brevioribus, bracteis stipulisque linearibus hispidis, dentibus calycis ovatis acutis. *DeCand. prodr.* 2. 225.
I. Dosua. *Don fl. nepal.* 244.

If we compare the accompanying figure with the foregoing character, extracted from DeCandolle's Prodromus, it will hardly be supposed that they both refer to the same plant. The number of pairs of leaflets is not half, and there is little trace of the tawny hairs that are said to clothe them; and which in fact do clothe them in wild specimens now before us. Neither do we find the long awl-shaped bracts which cover over the nascent flowers, and which are conspicuous in the wild specimens of Indigofera Dosua.

Nevertheless, upon the great authority of Mr. Bentham, we are led to refer our garden plant to this Indian species, which we learn from him is excessively variable in appearance. Not having studied the genus we have no opinion of our own upon the subject. All that we can state from our knowledge is that this plant is very pretty when in flower, forming a straggling bush, whose bright deep rose-coloured blossoms are highly ornamental. When out of flower it is rather shabby in appearance, and is therefore not well suited for growing singly.

It has been raised in the Garden of the Horticultural Society from seeds sent to England by Dr. Falconer from the

Botanical Garden of Saharunpur, and presented by the Honourable Court of Directors of the East India Company. It flowered for the first time in May 1840; but subsequently it has produced blossoms occasionally through the summer.

What gives it its chief value is that it appears to be a shrub sufficiently hardy to stand an ordinary winter in the open border, and growing vigorously in any good rich garden soil. It flowers freely during the months of July and August in the open border, but earlier if kept in the greenhouse. It is easily increased from cuttings of the young wood, treated in the ordinary way or by seeds.

This plant would make a fine object if introduced into Devonshire or Cornwall, where no doubt it would attain a large size.

HELLĔBŎRŬS olym̄pĭcŭs.

Olympian Hellebore.

POLYANDRIA *PENTAGYNIA.*

Nat. ord. Ranunculaceæ.
HELLEBORUS. *Botanical Register, vol.* 19. *t.* 1643.

H. *olympicus;* foliis radicalibus palmatisectis; segmentis oblongo-linearibus serratis basi integris, caule bifloro, foliis floralibus subsessilibus, sepalis ovatis obtusis herbaceis. *Bot. Reg.* 1841. *misc.* 113.

A native of the Bithynian Olympus, whence it was sent to the Horticultural Society by Mr. Sandison, Her Majesty's Consul at Brusa.

The observations made upon the Eastern Hellebore, at tab. 34 of this volume, apply equally to this so far as its habits are concerned. We have therefore only to address ourselves on the present occasion to what concerns its specific differences.

The following may be stated to be the principal distinctions between H. olympicus, and such species as it seems necessary to compare with it.

From *H. orientalis* in its palmate, not pedate, leaves, which are less acute, and more finely toothed; in its two flowered stems; and its smaller flowers which are pale green, and not coloured like petals.

From *H. niger* in its leafy scape, much longer than the leaves, which are palmate and not pedate; in the form of its leaflets which are serrated almost to the base, and want the almost rhombic form of that species.

From *H. viridis* in its firmer leaves, which are not pedate, and want the setaceous teeth of that species, and are perfectly sessile instead of being extended into a thin leafy petiole.

From *H. odorus* in its whiter and earlier flowers, thinner and smaller leaves, and an entire want of the coarse prominent ribs that stiffen the foliage of that plant, which moreover has the floral leaves on long leafy petioles.

From *H. purpurascens* in its large floral leaves, and finely toothed leaflets, to say nothing of the colour of the flowers.

And finally, from *H. atrorubens*, to which perhaps it is nearest, in its much larger pallid flowers, rounder sepals, and broad palmate, not trifid, floral leaves. The leaves moreover are much more leathery than in that species.

It is a hardy herbaceous plant, requiring a rather moist situation, and peat soil to grow in.

It is easily increased by dividing the old plants when in a dormant state, or by seeds, which should be sown, directly they are ripe, in pans filled with light rich soil.

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STĂTĬCĒ monopĕtălă ; *var.* denudātă.

Naked Monopetalous Sea Lavender.

PENTANDRIA *PENTAGYNIA.*

Nat. ord. Plumbaginaceæ.
STATICE. Botanical Register, 17. *fol.* 1450.

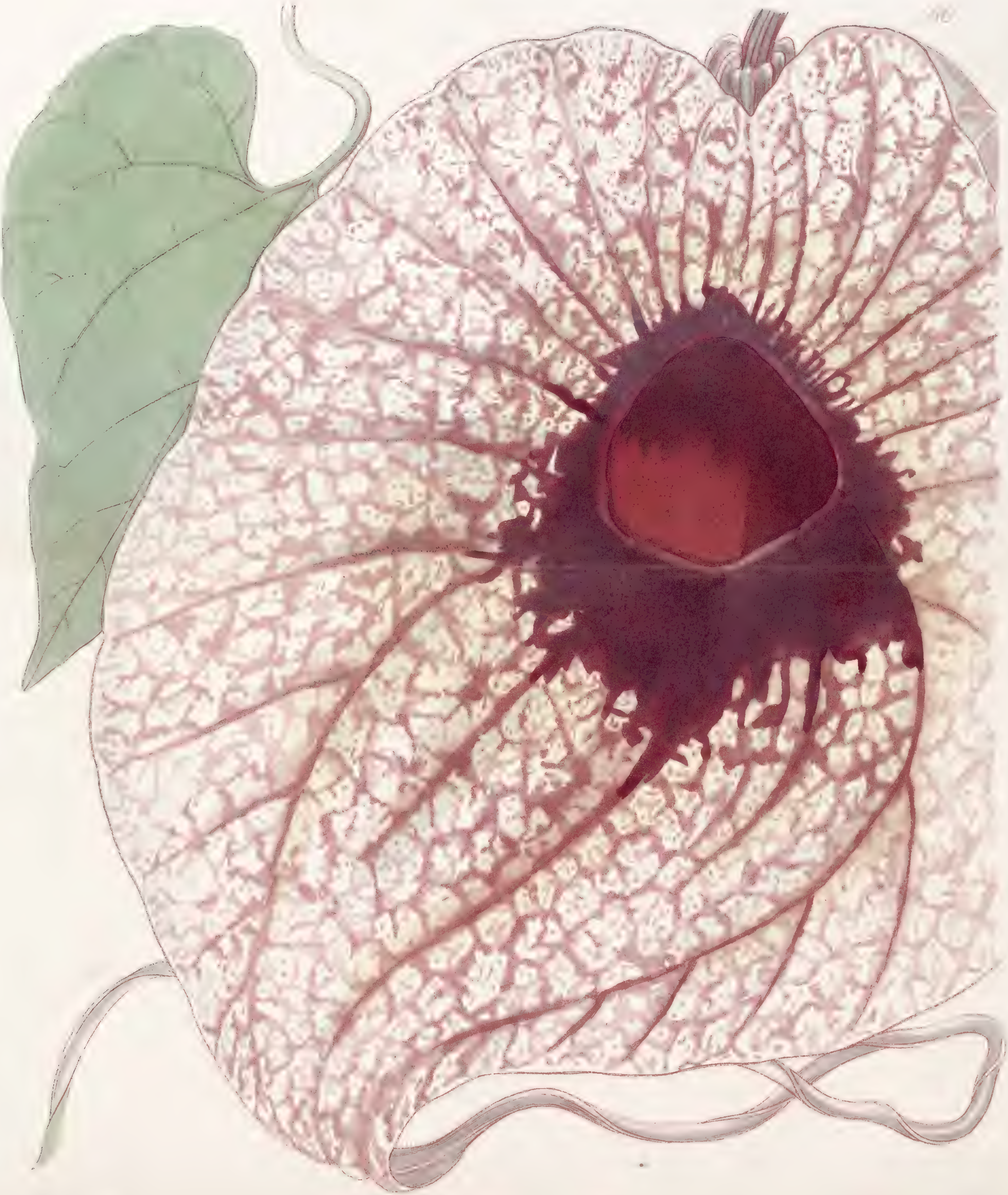
S. monopetala. *Supra* 1841. *t.* 54.
var. denudata; *foliis obovato-lanceolatis margine undulatis parùm lepidotis, ramis inflorescentiæ elongatis, floribus pallidis.*

At plate 54 of the Botanical Register for 1841, the original *Statice monopetala* has been figured. That now before us is a well marked variety, but nothing more, having smaller and paler flowers, a more "drawn up" manner of growth, broader leaves, somewhat wavy at the edge, and a much smaller quantity of calcareous scurf. No trace of it is found in books, and it is probably of garden origin. The Horticultural Society received it from the Botanic Garden of Leyden under the erroneous name of Statice suffruticosa.

It is nearly hardy, requiring only a slight protection during winter, when planted in the open border, but it suffers from damp.

It flowers during the autumn months, and grows freely in any rich light soil, and is easily increased by cuttings of the young wood, treated in the ordinary way.

October, 1842.



ARISTOLŎCHĬĂ Gĭgās.

Giant Birthwort.

GYNANDRIA *HEXANDRIA.*

Nat. ord. ARISTOLOCHIACEÆ.

ARISTOLOCHIA. Botanical Register, vol. 8. fol. 689.

A. *Gigas;* volubilis, foliis subpubescentibus latè cordatis acuminatis, calycis maximi tubo costato piloso limbo maximo cordato oblongo in acumen caudatum etiam longius producto intus subochraceo purpureo-maculato. *Lindl. in Bot. Reg.* 1842. *misc.* 53.

Well might this flower, although growing on a small plant in a flowerpot, excite the astonishment of the visitors to the Garden of the Horticultural Society in the months of June and July last; for certainly it is a rare event even in the prolific regions of the tropics to meet with so strange a production. If we were given to fancies we should speculate upon the possibility of its being a cross between an Elephant and an Arum, for the colour belongs to the latter, and the ear of the former, turned inside out, is no bad imitation of its form.

A similar production upon a much smaller scale has been already figured at fol. 1824 of this work, under the name of Aristolochia fœtens. It is not indeed easy to point out the differences between the two, except that A. gigas is a more hairy plant, and has flowers about four times as large, destitute of the offensive putrid smell of that species, for which nature has substituted a less unpleasant odour resembling that of old Tobacco.

After this had been named it was observed that an Aristolochia gigantea had been previously published. It is not, however, now worth altering the name of this which is quite a different species.

It was sent to the Horticultural Society by Mr. Hartweg from Guatemala, where it was also found by Mr. Skinner, who informs me that it is well known in that country under a name equivalent to Jew's Ear. It flowered for the first time in the Garden at Chiswick last summer. It strikes readily from cuttings, and is well adapted for covering a trellis in a pot, or for training up the rafters of the cool stove. If it can be planted out in the border of the stove, or warm greenhouse, it will grow larger and stronger than when confined to a pot, and form one of the most striking objects in the house. It grows well in any free soil, such as a common mixture of heath mould, loam, and sand.

Drake del

Pub by J Ridgway 169 Piccadilly Nov 1 1842

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GODĔTĬA grandiflōră.

Large-flowered Godetia.

OCTANDRIA *MONOGYNIA*.

Nat. ord. ONAGRACEÆ.
GODETIA. Botanical Register, vol. 22. *fol.* 1849.

G. *grandiflora ;* caule erecto, foliis lanceolatis subdenticulatis virescentibus glabriusculis, calycis tubo obconico laciniis duplò breviore, petalis albis basi rubescentibus vix maculatis calyce multò longioribus, antheris pallidis linearibus, stigmatis laciniis linearibus lutescentibus, fructu lineari 4-sulcato tereti pubescente. *Lindl. in Bot. Reg.* 1841. misc. 132.

A native of the North-West coast of North America, the country above all others rich in handsome hardy annuals. Douglas however never met with it, nor does any trace of it appear among the collections published from the materials of other travellers. It is most nearly allied to G. roseo-alba, a plant the origin of which is not well ascertained.

The flowers are the largest of any, and have a peculiarly delicate texture. The plant forms a bush about two feet high, less spreading than G. Lindleyana ; it flowers in July and August.

There are those who would reunite the genus Godetia with Œnothera, from which it has been separated by M. Spach : but we think that botanist right for once, and that Godetia is really quite a distinct genus. Its technical character consists in its seeds having an appendage in the form of a shallow membranous cup, which no doubt represents the tuft of hairs peculiar to Epilobium; but its constitutional differences are also remarkable. Its flowers are never yellow, as in true Œnothera, and what is remarkable there is in almost every species a distinct indication of a deeper blotch or spot a little below the middle of each petal, and where this is not evident the general colour of the petal becomes darker at that place. This constant tendency must be an indication of some remarkable physiological peculiarity, although we cannot explain its nature, and such indications are by no means to be overlooked in determining the limits of genera.

Unfortunately no seed was saved of this handsome annual, which was raised from seeds obtained from North-West America by the late Mr. Moreton Dyer.

To those who are fond of cultivating such plants the following directions will be found useful.

About the end of August, or beginning of September, sow the seeds of those plants which are to stand the winter in the open border and to flower in May; they may be trusted to any ordinary soil which is not rich or damp. If the soil is of that nature, or the seeds are sown thickly, the plants are very apt to perish during winter. If the weather is dry at the time of sowing, the soil should have a good soaking with water a few hours before the seed is sown, otherwise it may remain until the spring before it vegetates.

If the severity of the winter should destroy the autumn sown plants, sow some seed in pans about the beginning of March, and place them either in the greenhouse or cold pit, and when the plants are large enough pot them off, putting three or four plants into a sixty pot, placing them again in a cold pit or frame. Then, about the middle of April, plant them out in the open border, and they will flower nearly as soon as those which had been sown in the autumn, but the plants will not flower so finely, nor indeed will any which may be the produce of other sowings.

Another sowing should be made about the middle of March; but in this case the soil should be made rich; these plants will flower about June.

The next seed should be committed to the ground about the end of May or beginning of June; still making the ground rich, otherwise the plants attain no size, and flower weakly. These plants will flower in July and August. If a further succession is desired, a sowing made in July sometimes flowers well about the end of August, or in September. Much however depends on the season; if it proves dry, particular attention must be paid to watering the ground, both before and after the seeds are sown, and should the weather continue very dry, the seeds must be covered with an inverted flower-pot, if they are in small patches, or with a mat, if in a bed, until the seeds have germinated.

The following are the handsomest kinds of Godetias, and will all stand an ordinary winter, if sown in the open border in the autumn, except Godetia tenella and tenuifolia, which are Chilian plants, and should only be sown in the spring and summer: Godetia grandiflora, Lindleyana, viminea, decumbens, Romanzovii, amœna or rosea-alba, bifrons, vinosa, tenella and tenuifolia.

1

LÆLĬĂ flāvă.

Yellow Lælia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ § EPIDENDREÆ.
LÆLIA. Botanical Register, vol. 21. *fol.* 1751.

L. *flava;* pseudobulbis ovatis 1-2-phyllis foliis oblongis carnosis coriaceis planis subconvexis brevioribus, scapo erecto foliis longiore squamulis quibusdam distantibus vaginato, racemo cylindraceo, bracteis minimis acutis, sepalis petalisque oblongo-linearibus obtusis, labelli oblongi lobo medio sessili oblongo crispo recurvo lateralibus obtusis undulatis longiore venis 4 elevatis apice divergentibus. *Lindl. in Bot. Reg.* 1839. *misc.* 143.

L. caulescens. *Lindl. in Bot. Reg.* 1841. *sub t.* 1.

A pretty epiphyte, the accompanying drawing of which was made from a specimen in the possession of Sigismund Rucker, Esq. It originally appeared in the garden of Sir Charles Lemon, and an account of it was published in this work, at the place above referred to, from materials supplied by Mr. Booth, the gardener at Carclew. At that time it was said to be a native of Mexico, and it flowered in a very imperfect manner. I therefore trust I may be excused for not having recognized it when, in the year 1841, I found it among the dried Brazilian specimens belonging to the Herbarium of Dr. Von Martius, and republished it under the name of *L. caulescens;* upon the supposition, moreover, that the flowers were purple.

It is in reality near *L. cinnabarina*, a noble species, with orange-coloured flowers, also from Brazil. From that plant it is distinguished by the shortness of the pseudo-bulbs, and of the sepals and petals; and also by the bluntness of the middle lobe of the lip, whose veins are more elevated and diverge considerably at the point, instead of being nearly straight as in L cinnabarina.

The native situation of this species appears from Dr. Von Martius' herbarium to be the Serra de Piedade, in the province of Minas Geraes; I also possess a fine specimen from Prof. Gardner, collected in elevated rocky places in the Serra do Frio, in the Diamond District of Brazil.

Fig. 1. gives a view of the upper side of the lip.

This is one of those plants which ought to be grown in a cool stove, or at least at the cool end of the common Orchidaceous house. A temperature which suits Dendrobiums, and plants of that kind is very injurious to this species, and hence most persons who grow many of it have a cool-house and a warm one. It should be tied to a block of wood, or placed in a basket, and hung from the rafters. Like the rest of the family it is propagated by dividing the pseudobulbs.

As the genus Lælia is one of the finest in cultivation, and now consists of many species which have not lately been brought into one view, the following enumeration of them will probably be found useful.

LÆLIA. *Lindl.*

Sect. 1. Grandifloræ. Petals distinctly larger than the sepals; all but one are *natives of Mexico and Guatemala.*

1. L. *grandiflora* (L. no. 1. *Bletia grandiflora*, Llave Nov. Veg. Descr. 2. 17.); foliis binis aut ternis lanceolatis, bracteis membranaceis amplexicaulibus, sepalis lanceolatis, petalis ovatis majoribus carnosis venosis lateraliter emarginatis, labello purpureo-violaceo ad basin et medium albicante profundè 3-partito; laciniâ intermediâ maximâ emarginatâ subcrenatâ, limbo undulato purpurascente, prominentiis variis petaloideis lutescentibus sulcatâ, punctis coloratis diversimodè maculatâ.—— *Mexico.* ——An obscure plant, inhabiting the province of Mechoacan, on trunks of trees, and called by the inhabitants *Lirio, Flor de Corpus*, and *Itzumaqua.*

2. L. *majalis* (Lindl. Bot. Reg. 1839. misc. 42. Bateman Orch. Mex. t. 18. *Cattleya Grahami*, L. 116.); folio angusto scapo bifloro æquali, bracteis membranaceis ovatis, sepalis lanceolatis, petalis oblongo-lanceolatis duplò latioribus, labelli lobo medio rotundato emarginato plano lateralibus parvis obtusis.——*Mexico,* where it is called *Flor de Mayo* by the natives of San Bartolo, and the adjoining parts. —— Mr. Hartweg found it on the mountains of Leon, growing upon oak trees, at the height of 8,000 feet, where it sometimes freezes. It is one of the most beautiful of the whole order; the flowers are of a bright violet colour, and measure six inches from the tip of one petal to that of another. The labellum is dotted and veined with rich purple.

3. L. *autumnalis* (L. 115. Bateman Orch. Mex. t. 9. Lindl. in Bot. Reg. 1839. t. 27. *Bletia autumnalis*, La Llave.); pseudobulbis ovatis teretibus costatis apice attenuatis 2-3-phyllis, foliis oblongo-linearibus patentissimis scapo multò brevioribus, scapo tereti apice subsexfloro, bracteis

oblongis membranaceis acutis, sepalis lanceolatis acuminatis patentissimis, petalis oblongo-lanceolatis undulatis, labelli trilobi bilamellati lobis lateralibus erectis rotundatis truncatis intermedio oblongo-lanceolato apice reflexo, ovario glabro.——*Mexico*, near Oaxaca.——Scape sometimes 18 inches high. Flowers very deep rose-colour. Lip white, and spreading open at the base, where it has two elevated ridges.

4. L. *anceps* (Lindl. in Bot. Reg. t. 1751); pseudobulbis ovatis distantibus tetraquetris, foliis binis aut solitariis lanceolatis, scapo ancipiti bifloro squamis carinatis vestito, ovario viscoso, labelli disco lineari elevato apice trilobo.——*Mexico*.——Flowers bright rose-colour. Lip rolled up, with a very rich crimson point. The variety, called Barkeriana, figured at fol. 1947 of the Botanical Register, has narrow petals, and a sharper pointed lip.

5. L. *superbiens* (Lindl. in Bot. Reg. 1840. misc. 87.); scapo longissimo multifloro, bracteis lanceolatis maculatis, sepalis petalisque lineari-oblongis obtusis membranaceis labello longioribus, labelli lobo medio obtusissimo: disco lamellis quinque maximis subserratis anticè truncatis aucto, antheræ cristâ biauritâ, clinandrio denticulato——*Guatemala* and *Costa Rica*.——Of this species Mr. Skinner says, "this most magnificent of all plants flowers in November, and in some instances bears from eighteen to twenty flowers on stems from nine to twelve feet long!!" Mr. Hartweg found it in abundance in the state of Quesaltenango, near Chantla. It is planted by the Indians before their doors. Chantla, its native habitat, is very cold. The temperature of Costa Rica is 68° to 70°. Chantla is 55° to 65° generally.

6. L. *furfuracea* (Lindl. in Bot. Reg. 1839. t. 26.); pseudobulbis ovatis striatis submonophyllis, foliis angustè oblongis erectis acutis scapo multò brevioribus, scapo paucifloro tereti, bracteis oblongis membranaceis acutis, sepalis lanceolatis acuminatis patentissimis, petalis subrhombeis lanceolatis undulatis sublobatis, labelli trilobi bilamellati lobis lateralibus erectis rotundatis truncatis intermedio oblongo revoluto, ovario glandulis nigris furfuraceo.——*Mexico*.——In the colour and size of the flowers this is most like L. autumnalis: it is readily known by the black scurfiness that clothes the ovary.

7. L. *Perrinii* (*Cattleya Perrinii*, Lindl. Bot. Reg. 1838. t. 2.); foliis oblongis coriaceis cauli æqualibus, sepalis oblongis linearibus obtusis angustioribus, labello oblongo-lanceolato trilobo unguiculato nudo basi in cuniculum ventricosum producto; laciniis lateralibus erectis acutis intermediâ oblongâ undulatâ obtusâ elongatâ sinubus intermediis rectangulis.——*Brazil*.——A plant with club-shaped pseudobulbs, and a large green spathe, from within which the scape makes its appearance; so that it has quite the habit of a Cattleya. The flowers are pale lilac, with a deep purple tip to the labellum. It would be a Cattleya if it had not eight pollen-masses.

8. L. *peduncularis* (Lindl. in Bot. Reg. 1842. misc. 10.); pseudobulbis subrotundis compressis lineâ utrinque elevatâ, foliis oblongis obtusis scapo tereti vaginato brevioribus, corymbo 4-floro, bracteis pedunculo pluries brevioribus, sepalis linearibus obtusis pedunculo brevioribus, petalis oblongis obtusis planis, labelli lobis lateralibus rotundatis intermedio oblongo rotundato plano glabro multo brevioribus; lineis duabus elevatis.——*Mexico*.——A species of some beauty, with the habit of L. rubescens, but with rich violet whole-coloured flowers. The peduncles are 1¾ inch long,

and the flowers themselves are nearly of the same length when closed. The species is near L. rubescens and acuminata, but the flowers are much larger, the flower-stalks much longer in proportion, and the labellum quite round at the point and flat. The pseudobulbs are not at all tetragonous, but are compressed, with only a slight line in the room of the intermediate angle.

9. L. *rubescens* (Lindl. in Bot. Reg. 1840. misc. 25. 1841. t. 41.); pseudobulbis subrotundis compressis utrinque angulo elevato, foliis oblongis obtusis scapo tereti vaginato brevioribus, racemo multifloro, bracteis ovario plus duplò brevioribus, sepalis linearibus, petalis lanceolatis subundulatis, labello conformi auriculato medio pubescente : lineis duabus elevatis.——*Mexico.*——Flowers white, tinged with pink, the petals and lip wavy, the latter with a yellow disk, and a deep purple spot near the base.

10. L. *acuminata* (Lindl. in Bot. Reg. 1841. t. 24.); pseudobulbis ovatis compressis rugosis, foliis solitariis emarginatis scapo erecto brevioribus, floribus corymbosis, bracteis linearibus acuminatis ovario duplò brevioribus, sepalis linearibus petalisque lanceolatis undulatis acuminatis, labelli lobis lateralibus rotundatis intermedio lanceolato undulato acuminato. ——*Guatemala,* where it is called *Flor de Jesus.*——Resembles the L. rubescens; but the flowers are larger, the lip less yellow, and the purple spot at its base less intense.

11. L. *albida* (Lindl. in Bot. Reg. 1839. misc. 4. t. 54.) pseudobulbis ovalibus diphyllis, foliis linearibus acutis spicâ multiflorâ 4-plò brevioribus, sepalis oblongo-lanceolatis acutis vel subacuminatis petalisque latioribus acutis, omnibus apicibus reflexis fortiter mucronulatis; labelli altè trilobi tricostati lobis lateralibus erectis rotundatis intermedio duplo majore subrotundo obscure apiculato reflexo.——*Mexico.*——Flowers white, tinged with pink, very sweet-scented, like Primroses. Petals and lip reflexed. Mr. Barker has communicated a curious monster of this plant, with the dorsal sepal united to the back of the column by means of a thin plate resembling a small knife-blade. What is very singular every flower of the specimen was in the same state.

Sect. II. PARVIFLORÆ. Petals the same size as the sepals. *Brazilian.*

12. L. *flava* (Lindl. in Bot. Reg. 1839. misc. 143. 1842. t. 62. *L. caulescens,* Lindl. in Bot. Reg. 1841. sub. t. 1.)——*Brazil.*

13. L. *cinnabarina* (Bateman in Sertum Orchidaceum, t. 28.); pseudobulbis cylindraceo-ampullaceis elongatis, foliis binis basi discretis oblongis subrecurvis et undulatis, scapo tenui ascendente foliis multò longiore 4-5-floro, sepalis petalisque oblongo-linearibus obtusis æqualibus, labelli oblongi convoluti recurvi lobis lateralibus acutis intermedio ovali crispato, lineis 3 elevatis in axin.——*Brazil.*——Flowers rich orange-colour.

14. L. *rupestris;* pseudobulbo elongato monophyllo, folio oblongo erecto canaliculato scapo racemoso multifloro breviore, sepalis petalisque oblongis acutis, labelli circularis lobo intermedio obtuso margine crispo disco plano lateralibus obtusis, lineis 2 elevatis rectis.——*Brazil.*——Found by Professor Gardner in elevated rocky tracts in the Diamond District. "Flowers violet." Very near L. flava.

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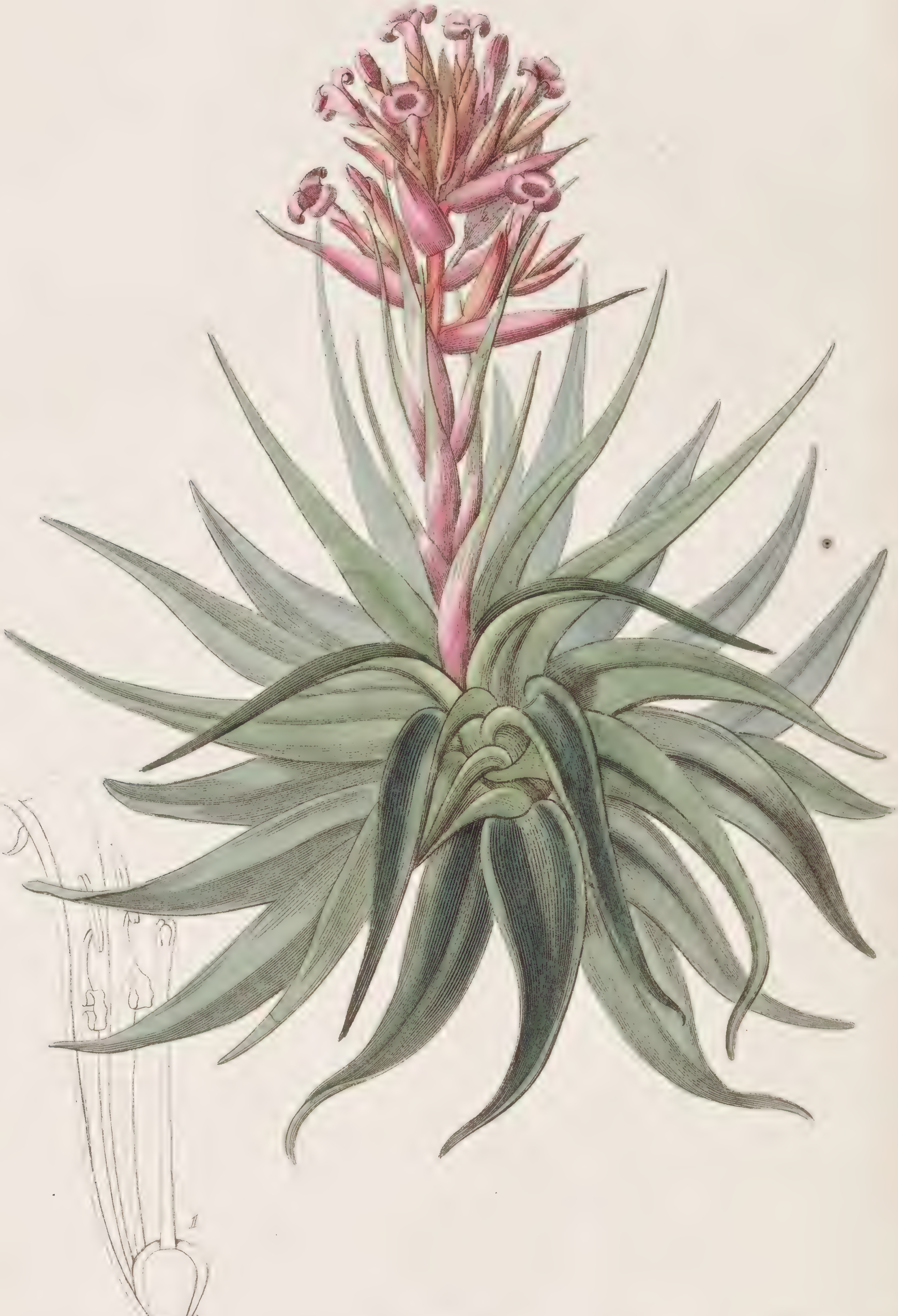

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TILLĀNDSĬĂ rūbĭdă.

Madder-coloured Tillandsia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. BROMELIACEÆ.
TILLANDSIA. Botanical Register, vol. 2. *fol.* 105.

T. rubida; undique lepidota, foliis ovato-lanceolatis canaliculatis acuminatis exterioribus recurvo-patentibus, scapi vaginis acuminatis erectis, spicâ oblongâ subcompositâ, bracteis lanceolatis mucronatis calycibus paulò longioribus petalis brevioribus, sepalis petalis brevioribus, filamentis versus apicem sigmoideis, ovario obovato.

A dry-stove epiphyte, imported from Brazil by Messrs. Loddiges, with whom it flowered in February last. It is a very pretty plant, gay with madder-coloured flowers for many weeks.

It is nearly related to *T. stricta,* already figured at fol. 1338 of this work, but its bracts are scurfy, not smooth, and are terminated by a long stiff point; the flowers are red not violet-coloured, and much longer than any of the bracts except the lowermost. It is also not improbable that in T. rubida the spike may become very decidedly branched, of which there are plain indications in the specimen figured; in T. stricta there is no tendency whatever to branch.

It will grow well if placed in a basket, and hung from the rafters of the stove. The back or end-wall of a pine stove would suit it very well, and the general treatment should be the same as is applied to those plants.

It is to be suspected that this and other species may lurk in herbaria under the name of T. stricta; of one instance at least we have evidence in the case of the plant distributed by Professor Gardner under the number 134, and since published by him as *T. stricta* in the London Journal of Botany.

November, 1842.

That plant is much larger than the genuine species, has the leaves ending in a fine thread, covered all over with a coarse shagginess which breaks up into a kind of chaffy fringe at the edges; the bracts are protected in the same manner, and with the flowers form a hemispherical head quite overtopped by the slender points of the leaves. To this the name of *T. Gardneri* may be applied, with the following diagnosis.

T. *Gardneri;* undique ramentaceo-lepidota, foliis lanceolatis in acumen filiforme productis exterioribus patentibus interioribus spicâ longioribus, scapi vaginis filiformi-acuminatis erectis, spicâ simplici hemisphæricâ, bracteis oblongis superioribus obtusis calycibusque mollibus æquilongis.

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[illegible] [illegible] May [illegible] Barclay sc

OXĂLĬS rubrocīnctă.

Red-edged Wood Sorrel.

DECANDRIA *PENTAGYNIA.*

Nat. ord. Oxalidaceæ.
OXALIS. *Botanical Register, vol.* 2. *fol.* 117.

O. *rubrocincta;* acaulis fragilis carnosa obsoletè pubescens, foliis 3-foliolatis, foliolis obcordatis intra marginem subtusque punctatis, scapo apice bifido ramis racemosis paucifloris, calyce pentagono petalis cuneatis rotundatis breviore, stigmatibus bilobis fimbriatis staminibus brevioribus.

Among the earth of Mr. Hartweg's Guatemala plants this sprang up and flowered in the Garden of the Horticultural Society in September 1841. It is a very neat looking species, remarkable for the appearance of its leaves, which are very succulent, brittle, having almost a crystalline fracture, and bordered with a rich purple edge, within which is a distinct row of deep purple dots, many of a similar kind being scattered over the under side of the leaf. When dried all this marking disappears.

The sepals too are deserving of notice. Two of them are much larger than the others, with both their edges turned back; a third has one edge only turned back, the other seeming to be deficient; the two others are very narrow, and have no distinct edge whatever. This is shewn by fig. 1. which represents a calyx cut across.

Fig. 2. shews one of the stigmas, with its ends broken up into long fringes. Fig. 3. represents the stamens and styles in their natural position with respect to each other.

The transparency and delicacy of the texture of this plant enables the observer to see very distinctly the beautiful arrangement provided for feeding the leaflets by sap drawn up from the root. At first sight the leaf-stalk seems to consist of a central line of fibres disposed in a confused manner, and having no particular relation to the leaflets. But if the leafstalk is pressed gently between two glass plates, and regarded against the light, it will be found that the central line in reality consists of six independent channels of communication, arranged in pairs; so that each leaflet communicates with the root by means of two sets of tubes, one of which feeds one half the leaflet and the other the other half.

It is a greenhouse plant of easy cultivation, requiring to be potted in light rich soil, placed near the glass, and when growing freely it should be liberally supplied with water. After it has perfected its flowers and leaves in the autumn, they die off, and the soil must then be kept perfectly dry until growth commences again in spring. It is easily multiplied by dividing the crowns of the roots.

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Miss Drake d. … by J Ridgway 169 [illegible]

TROPÆŌLŪM azūrĕūm.

Blue Nastūrtium.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Balsaminaceæ, § Tropæoleæ.
TROPÆOLUM. *Supra vol.* 9. *fol.* 718.

T. *azureum;* foliis quinquepartitis: laciniis linearibus subæqualibus, petalis æqualibus bilobis integerrimis calyce multo longioribus, calcare conico sepalis breviore.

Tr. azureum. *Miers's Travels in Chile, Appendix.* *Lindl. in Bot. Register, sub t.* 1547.

Here is at last produced the blue Nasturtium, first mentioned by Mr. Miers, in his travels in Chili, the existence of which has been doubted, but which was met with many years ago by Mr. Bridges on the mountain range, called the Campana de Quillota, at a height of 4,000 feet, and has now been obtained alive by Messrs. Veitch and Son of Exeter, who have received for it the large silver medal of the Horticultural Society.

It is a most remarkable plant, much deeper coloured in a wild state than it has yet been in cultivation, and a very valuable acquisition for Gardens.

A few years since a Blue Nasturtium was classed in the same class of impossibilities as a Hippogriff or a Unicorn, for men's minds were warped and their vision distorted by the theory of cyanic and xanthic series in flowers, which could not, as it was said, interfere with each other. It was asserted that in those cases where a pure yellow is observable in a particular genus, no blue could possibly be produced, and that, on the contrary, where a blue colour exists in a genus, yellow was expelled. It is true that the Hyacinth and Aconite seemed to offer some difficulty in the way of these propositions, but it was alleged that the so-called yellow of the Hya-

December, 1842. 2 B

cinth was a bad green, and that the blue of the Aconite was really violet. However, here is a genus in which all the species previously discovered were either yellow, or some colour in which yellow occurs in manifest combination; but the Tr. azureum has no yellow at all, the blue being as perfect as that of the Siberian Larkspur.

It is then no longer safe to assert that a blue Dahlia, or a yellow Pelargonium, or a blue Ranunculus, or a yellow Pæony, are impossibilities. There is no telling how soon art or accident may produce every one of them.

This pretty species makes a beautiful object when trained on some ornamental wire-work, fastened to the pot, and requires the same kind of treatment as Tropæolum tricolorum.

The soil, in which it is potted, should consist of some good rich sandy loam and leaf-mould, or fibry-peat, with a good portion of sand. The mixture should not be sifted fine, but left rather coarse. Then when the roots begin to grow (which generally happens in August or September), pot them in the above mixture, covering the root in the soil about half an inch, and well drain the pots. The pots should then be placed in a sheltered situation, but not in a confined or shaded place, out of doors. They will then grow rapidly, and much stronger than if kept in the greenhouse or pits, but when the nights get cold or wet, they must be removed to the greenhouse for the winter, out of the reach of the frost; they must be placed in an airy and rather dry situation, and where there is plenty of light. They will then flower freely during the spring and part of the summer.

If there are several roots some may be retained in a dry state until the spring, before potting, by which means they will flower much later.

When the plants have done flowering withhold water gradually, and place the pots in a dry situation. The bulbs do best when allowed to remain in the pots all summer to rest.

It is increased by cuttings, taken off before the plant begins to flower. The young plants, when struck, should not be either potted off, or the tops tied up, but allowed to grow and hang down over the pot.

W. Herbert del Pub by J. Ridgway 169 Piccadilly Decr 1. 1842 G. Barclay sc

COBŪRGĬĂ versĭcŏlŏr.

Changeable Coburgia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ. (*Subord.* AMARYLLIDEÆ, § PANCRATIFORMES.

COBURGIA. Vide Supra, vol. 11. *p.* 1196.

C. *versicolor;* bulbo triunciali subrotundo collo producto, foliis glaucis attenuatè subobtusis 2½ pedalibus biunciam latis canaliculatis dorso ecostato, scapo ancipiti tripedali inferne sesquiunciam lato, spathâ deciduâ, perianthio versicolore ex miniato fulvo-albescente, tubi parte inferiore unciali tenui curvatâ, superiore sesquiunciali ventricosâ, limbo unciali laciniis acutis subsemunciam latis maculâ extus magnâ viridi, intus albâ viridi-marginatâ, coronâ dentibus bilobis recurvis acutis viridibus, filamentis albis limbo brevioribus, stylo limbum superante.—*Herbert in Bot. Reg.* 1842. *misc. no.* 85.

"This beautiful plant is the produce of the excursions of J. Maclean, Esq. over the Peruvian Andes from Lima, where he did not see it in flower, and the exact place of its growth is not noted.

"The large species of Coburgia are found deeply imbedded in rich alluvial soil, in the clefts or on the summit of rocks, and on the edge of precipices. They flower sparingly in their native land, and much difficulty has been found in making them bloom in Europe. Those who cultivate the bulbs for sale, may plant them in the open ground, taking them up to lie dry during the winter ; but, on the mountains where they grow, the temperature varies less than with us, and the principal division of season is dry and wet. There the Coburgia preserves its leaf often the whole year, and flowers in the heat of December and January, which answer to our June and July, and that period has been preceded by the free growth of the leaf. In order, therefore, to make the old bulbs flower, we ought to obtain a vigorous state of growth before midsummer, and at that time, if bloom does not appear, place them in a hotter situation.

"They like strong soil, mixed with perfectly rotten and pulverized dung or leaves, the neck being kept above ground if they are in pots."—W. H.

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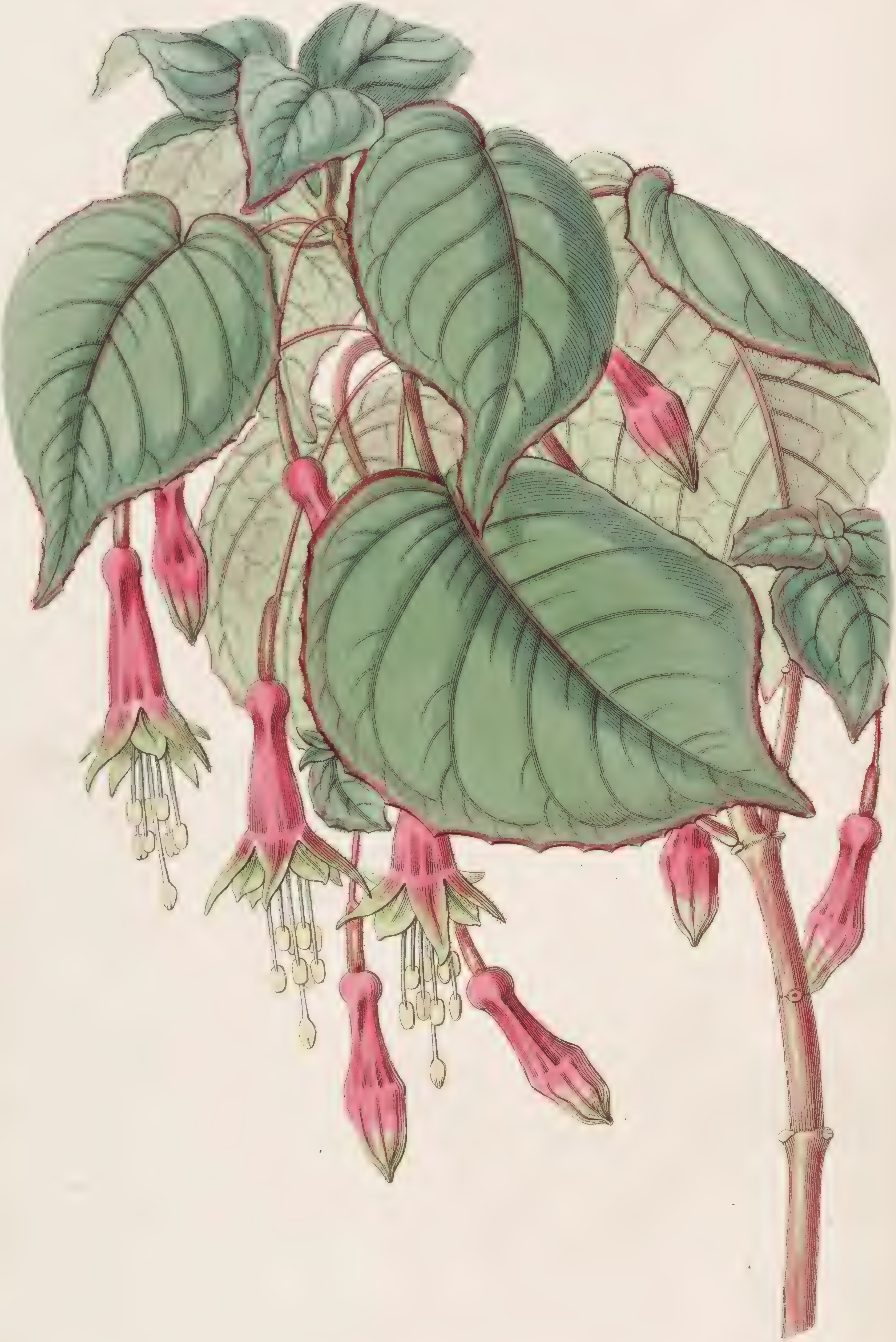

[illegible] by J Ridgway 169 Piccadilly [illegible] 1842

FŪCHSĬĂ splēndēns.

Splendid Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRACEÆ.

FUCHSIA. L. *Botanical Register, vol.* 15. *fol.* 1269.

F. *splendens;* suffruticosa, pubescens, foliis oppositis ternatisque longè petiolatis ovatis cordatis acuminatis denticulatis, pedunculis filiformibus solitariis axillaribus, ovario cylindraceo tomentoso, calyce basi ventricoso laciniis triangularibus acutis petalis ovatis planis patulis longioribus, staminibus longè exsertis.

F. splendens. "*Zuccarini in Flora,* 1832. 2. *Beibl.* 102." *fide Bentham Pl. Hartweg. p.* 61. *no.* 460.

Fine a plant as F. fulgens is, we regard this as being still more beautiful, because of the vividness of the scarlet and pale green colours with which it is adorned. In habit it much resembles it, and, in fact, was supposed at one time to be the same species: but it evidently differs in many important circumstances. The leaves are much more heart-shaped, and have a longer and more tapering point. The flowers have much larger stalks, and have themselves far more of the campanulate figure. The stamens moreover project a long way beyond the mouth of the tube. When very young the foliage and lengthening branches are quite hoary with down.

The accompanying figure was made in the Garden of the Horticultural Society, from plants produced by some of Mr. Hartweg's seeds. It will probably be the hardiest of its race, for it was found on the mountain called Totontepeque, at the height of ten thousand feet above the sea, or little more than 5500 feet lower than the frozen summit of Mont Blanc.

This species should neither be cultivated in very rich soil nor in a large pot, for both these circumstances have a tendency to prevent its flowering freely. It will grow well enough in any free soil, and flowers abundantly in the early part of the season. Young plants are easily struck from cuttings of the young shoots when planted in sand, and treated in the usual way.

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Miss Drake del. Pub by [illegible] 1842 G. Barclay sc

ZĬCHY̆Ă villōsă.

Villous Zichya.

DIADELPHIA *DECANDRIA.*

Nat. ord. Papilionaceæ.

ZICHYA. *Botanical Register, for* 1839, *t.* 52.

Z. villosa; foliis ovatis acutis obtusisque subtus pallidis ramisque villosis, laciniis calycinis tubo brevioribus, carinâ alis æquali, stylo apice simplici, corymbis densis capitatis multifloris longi-pedunculatis. *Lindl. in Bot. Reg.* 1841. *misc.* 81.

The pretty genus Zichya seeems to abound with species much resembling each other in general appearance, but differing in the form of their leaves, their colour, the nature of their hairiness and similar circumstances. A complete collection of them, trained to the same kind of trellis, in similar pots, would have a very pretty appearance.

That now figured was raised from Swan River seeds by Mr. Standish, Nurseryman, Bagshot. The following series of contrasts shews in what respects it differs from the other species:

From *Z. dilatata* in its shagginess, smaller flowers, and small intermediate leaflet.

From *Z. glabrata* in its shagginess, dense many-flowered heads, and ovate leaflets.

From *Z. tricolor* in its smaller foliage, not at all glaucous underneath.

From *Z. inophylla* in its looser heads of flowers, and smaller differently formed leaflets.

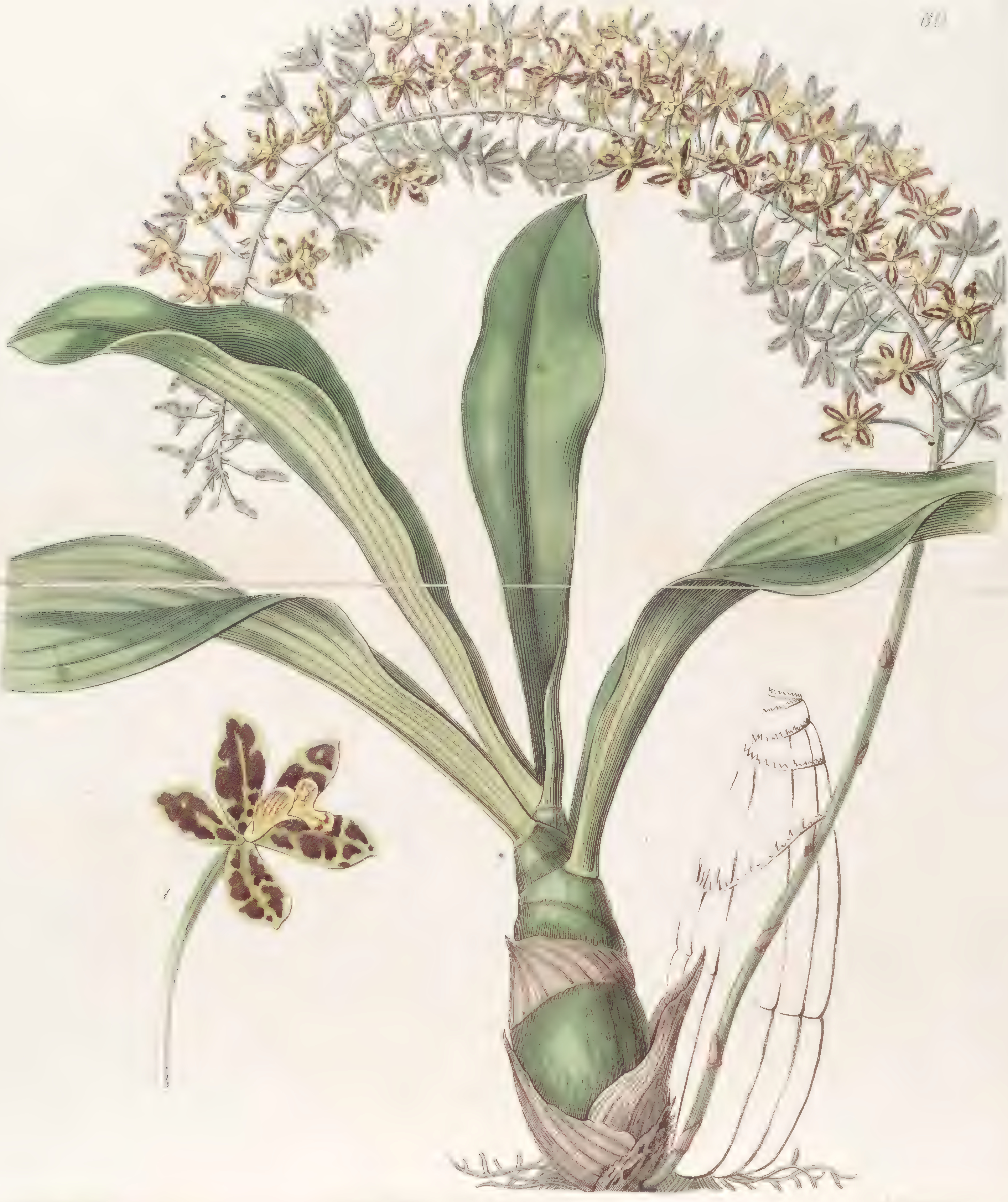
From *Z. Molly* in its thin, ovate, not obovate or roundish leaflets, and much larger and looser heads of flowers.

From *Z. angustifolia* in its ovate, not long and linear leaflets.

This is a free-growing greenhouse climber, well suited for either training round some ornamental wire-work, fastened to a pot, or trained to the pillars or rafters of a greenhouse. The plant grows freely in a mixture of loam and sandy peat, when not broken very fine, and the pots are well drained.

It is easily increased by cuttings, or by seeds, which are produced freely when the plants get large.

It flowers a great part of the summer, if properly treated, and placed where it has plenty of light and air, but it should never be placed out of doors during summer (as is frequently done), as the plants are generally injured in such a situation by either the wet or wind. They do best kept in a cold frame all summer, with the back turned to the sun, but with the lights off during fine weather.



GRAMMATOPHYLLUM multiflorum; *var.* tigrinum.

The Tiger-spotted Letter-leaf.

GYNANDRIA *MONANDRIA.*
Nat. ord. ORCHIDACEÆ § VANDEÆ.
GRAMMATOPHYLLUM. *Supra t.* 65. 1839.

G. *multiflorum.* Botanical Register, 1839. p. 65.
Var. tigrinum ; floribus lutescentibus maculis tigrinis.

We have already given the history of this fine plant at plate 65 of the Botanical Register for the year 1839. At that time, however, the variety that had flowered was but dingy and insignificant in comparison with what is now represented, in which we have almost as rich a colouring as in Oncidium papilio. We are aware that the species varies a good deal in the markings of its flowers, and, if we may judge from the dried specimens brought home by Mr. Cuming, there are kinds yet handsomer than this.

Our plate gives a reduced view of the habit and general appearance of this stately plant : fig. 1. shews a flower of the natural size.

It is a stove plant, and succeeds easily in the hot-damp Orchidaceous house. It may either be grown in turfy peat, in a pot, or suspended from the rafters ; if cultivated as an air plant, the roots should be surrounded with some substance, such as sphagnum, or peat, and liberally supplied with water. When well managed it flowers regularly every year, and continues in flower longer than any plant of its race with which I am acquainted. It is propagated in the usual manner.

MISCELLANEOUS MATTER

OF THE

BOTANICAL REGISTER,

1842.

1. SPIRÆĂ fĭssă.

S. *fissa*; fruticosa, pilosiuscula, ramis angulatis, foliis cuneato-obovatis inciso-serratis supra glabris subtus petalisque minutè pubescentibus, paniculis laxis tomentosis terminalibus, calycibus bibracteolatis petalis subæqualibus.

This new hardy shrub has already been noticed at p. 73, no. 170 of the miscellaneous matter for 1840, but without a character. It has now (Nov. 1841) flowered, and proves to be the Spiræa argentea of *Mr. Bentham's Plantæ Hartwegianæ, no. 575*; it is, however, very different from the plant so called from New Grenada, which really has the leaves closely covered with silvery hairs. As has been already stated, this plant is near Sp. ariæfolia, but is less showy. It has petals so small and green, that although the flowers appear in long loose panicles, they are by no means handsome; it forms, however, a good-looking bush. When the leaves are young they are split, as it were, into numerous coarse teeth; but when the plant is older the leaves are less serrated, and the incisions become comparatively inconspicuous. The only hairs upon them are on the underside, where they form an extremely fine close down. The specific name refers to the split appearance of the leaves when young.

2. EPIDĒNDRŬM polyānthŭm.

Gen. & Sp. Orch. no. 50.

A specimen of this noble species has lately flowered in the garden of the Horticultural Society, from plants sent from Guatemala by Mr. Hartweg. The flowers are of a rich salmon colour, and about the size of those of E. Schomburgkii. The species in its natural state is most beautiful; a specimen before me from Mr. Hartweg, bears a many-flowered panicle, loaded with close-set nodding racemes. In consequence of having examined an imperfect specimen from Messrs. Loddiges, I lately committed the error of regarding this as a new species, which I named Ep. bisetum. The latter name has therefore to be cancelled.

3. ERĬĂ profūsă.

E. *profusa* (Lanatæ); pseudobulbis ovalibus apice diphyllis, foliis oblongis striatis racemis pubescentibus multifloris brevioribus, bracteis squamæformibus pedicellis brevioribus, sepalis tomentosis, petalis lineari-oblongis obtusis, labello trilobo laciniis lateralibus erectis lævibus intermediâ subrotundâ rugosâ apice tuberculo solitario oblongo cristatâ.

A species from Ceylon, where it was found by Mr. Nightingale, who sent it to his Grace the Duke of Northumberland, in whose garden at Syon it flowered in Nov. 1841. The flowers appear in numerous racemes, nearly a foot long, and are soft with brown down. The labellum is bright light green. I perceived no smell in the specimens I examined. It is a species of little beauty.

4. SACCOLĂBĬŪM ochrācĕūm.

S. *ochraceum;* foliis distichis coriaceis apice obliquè bilobis, racemis subramosis, sepalis petalisque linearibus obtusis carnosis (luteis rubro-fasciatis), labelli laminâ subsagittatâ recurvâ papillosâ margine erosâ, calcare obtuso.

A native of Ceylon, whence it was sent by the late Sir Wilmot Horton to Messrs. Loddiges. It has much the appearance of Cleisostoma maculosum, but it is a true Saccolabium. The flowers are small, of an ochrey yellow colour, marked with transverse broken bands of dull red.

5. BARKĒRĬĂ Lindleyānă.

B. *Lindleyana* (Bateman mss.); foliis ovalibus acutis, bracteis linearibus pedunculo multò brevioribus, labello exactè oblongo apiculato bicarinato carinâ alterâ sub apice interjectâ, unguiculato plano basi columnæ adnato, columnâ clavatâ alatâ apice tridentatâ immaculatâ.

This beautiful plant has exactly the appearance of Epidendrum Skinneri, with which, at first sight, it would perhaps be confounded. It appears however to be a Barkeria as far as that genus has any character to separate it from Epidendrum; that is to say, it has the winged column, and the labellum with a thin membranous border down far below the head of the column. It is however to be observed, that in the original Barkeria the labellum was absolutely free and sessile; while in the present species it has a distinct unguis connate with the base of the column.

The flowers of this plant are of a rich deep purple; the sepals and petals are of equal size, linear-lanceolate, and disposed in the same plane, directed forwards in the same manner as in the original species; the petals are however rather broader than the sepals. The labellum is rather more than three quarters of an inch long, exactly oblong, and rounded at each end, terminating in front in a small mucro, and abruptly narrowed at the base into a short unguis united to the base of the column; it is of the same rich purple as the other parts, but somewhat deeper, except in the centre, where it is nearly white; two elevated keels pass upwards along the middle, and lose themselves near the point of the lip; and a third keel much shorter is placed between them towards the point; so that the lip is bicarinate in the middle and tricarinate below the apex. The column is slightly winged, pretty exactly wedge-shaped, and 3-toothed at the point. The anther is sunk within those three teeth, and is depressed in the middle, while it is elevated at each side; it is very fleshy, and contains four cells, in which are located as many pollen-masses, each having a powdery strap bent back upon it. The plant is a native of Costa Rica, whence it was sent to Mr. Bateman by Mr. Skinner. In a letter received from the former of these gentlemen it is stated that this most charming species "has been fully seven weeks in flower, and yet the blossoms first opened are as fresh as ever, a case quite without parallel among orchidaceous flowers of its colour."

6. DENDRŎBĬŪM discŏlŏr.

Bot. Reg. 1841. *t.* 38.

Upon re-examining the species of this genus I have found that the plant published lately under the above name, although from Java, is the same as D. undulatum found by Dr. Brown on the north coast of New Holland, and before him by Sir Joseph Banks in the same country. The reader will therefore be good enough to expunge the name of *D. discolor*, and to substitute that of *D. undulatum.*

7. ONCĪDĬŪM pergamĕnĕūm.

Lindl. in Benth. Plant. Hartweg. ined.

This is a pretty species from a situation in Guatemala called Medio Monte, where Mr. Hartweg found it in August, 1839. It has very thin pseudo-bulbs, sharp-edged, and somewhat furrowed on each side. The leaves are in pairs, from five to six inches long by one and a half to two inches wide, of a thin parchment-like texture, oblong, narrowing down to their base and sharp-pointed. The flowers are in a weak loose panicle, about two or three feet long, and have much the appearance of O. Baueri. The sepals and petals are narrow, sharp-pointed, wavy and brown tipped with yellow; the lip is all yellow, except a dull brown stain on each side of the base of the middle lobe. The lip is in form like that of O. Wentworthianum; that is to say, it is broader at the base than the apex, which is transversely oblong, with a small point in front. The wings of the column are small, short, and curved like a bird's bill, with a few obscure toothings on the upper edge.

8. ONCĪDĬŪM Suttōnī.

O. *Suttoni* (Bateman mss.); pseudobulbis ovatis compressis sulcatis diphyllis, foliis linearibus gramineis sæpe scapo æqualibus, scapo simplici v. ab ipsâ basi paniculato angusto ramulis 3-5-floris, sepalis petalisque lineari-lanceolatis planis, labello oblongo basi auriculato angustiore, tuberculo cristæ 7-9-dentato, columnæ alis triangularibus.

A very distinct species from the same locality as the last, where it was found by Mr. Skinner, to whose kindness I am indebted for excellent dried specimens. The grassy leaves, often as long as the erect panicle, although sometimes much shorter, give it a peculiar appearance, added to which the sepals and petals are a dull olive brown without any spots, except at the point, where they are yellow, while the lip has also but one dull olive brown spot occupying the centre of the base. The triangular form of the wings of the column will readily distinguish this from O. pergameneum, which has also the lip broadest, not narrowest, at the base, and entirely different leaves. Mr. Bateman has named it in compliment to Captain Sutton, R.N. who has brought so many valuable plants from America to England. In his note Mr. Bateman writes of the plant thus:

"The habit is more distinct than the flowers, though they have an aspect which cannot be mistaken. Pseudo-bulbs from an inch to an inch and a half high, ovate, compressed, deeply furrowed, bearing two rather long narrow linear leaves; flower-stems few flowered, and usually both in native and cultivated specimens shorter than the leaves, and drooping; occasionally the spike is longer, and a little branched, but this is very rare. The *buff* lip gives it a characteristic *look.* The species is very pretty."

9. MĪNĂ lobātă.

De La Llave et Lexarza Novorum veget. descrip. fasc. 1. *p.* 3.

This is a convolvulaceous plant of much beauty and more singularity, for which we are indebted to George Frederick Dickson, Esq. who presented its seeds to the Earl of Burlington. Under the care of his Lordship's gardener, Mr. Wilson, a single specimen was raised last year, and produced its curious flowers in November. The habit of the plant is quite that of a crimson lobed-leaved Ipomæa, but the flowers grew in forked erect racemes, and have not at all the aspect of a Convolvulus. At first they are deep crimson, but when expanded are of a pale lemon colour.

By all modern authors this genus Mina is regarded as the same with Exogonium, an error, as I conceive, which can only have arisen from the plant itself not having been seen. It is in reality quite a distinct form of the Convolvulaceous order, as I shall shew when the figure appears in a future number. According to the authors above quoted it is cultivated by the Mexicans for the beauty of the flowers. It will no doubt be a green-house plant; but is at present in no collection except that of the Horticultural Society, to which it was most liberally presented by the Earl of Burlington.

Flora Rossica sive Enumeratio Plantarum in totius imperii Rossici provinciis Europæis, Asiaticis et Americanis hucusque observatarum. Auctore Dr. Carolo Friderico a Ledebour. Fasciculus I. Stuttgartiæ. Sumtibus librariæ E. Schweizerbart. 1841.

The author of this work is well known for his journey into the Altai range of mountains in search of Botanical information; and for his learned work on the systematical Botany of those regions. He now proposes to gather under one head an account of the whole flora of the huge empire of Russia, including the Arctic circle, all the region between the latter, and where oaks begin to grow, thence to the countries of the Vine, the southern provinces, including the Crimea and the mountains of the Caucasus, the lands of Ural, of Altai, of Lake Baikal, and of Daouria, the East of Siberia, the land of the Tschuktskis, Arctic Siberia, Kamtschatka, the islands of the Eastern ocean, and the Russian possessions in America; in a word, the work will be the flora of a seventh part of the world. In this immense labour the author has no doubt access to all the treasures collected at St. Petersburgh and in the Russian colleges; and they could hardly be in better hands.

The first part of the first volume is before me. It follows the order of DeCandolle's Prodromus, as far as Cistaceæ, with which it terminates. It occupies 240 pages, and will no doubt prove an important addition to the systematical Botany of the vast countries to which it relates. It comprehends many interesting novelties, among both genera and species, and we have nothing to complain of excepting the thinness of the paper which allows the type on one side the page to disfigure that on the other, and which, in the country where paper is cheap, is not very creditable to the publishers. Nothing so bad would be produced in *dear* England.

Enumeratio Plantarum omnium hucusqne cognitarum, secundum familias naturales disposita, adjectis characteribus differentiis et synonymis. Auctore C. S. Kunth. Vol. III. Stuttgardiæ Cottæ. 8vo. 1841.

This, the 3rd volume of M. Kunth's useful Species Plantarum, consists of 644 pages, and includes the following orders; viz. The Araceous, including Lemna and Pistia; the Typhaceous; the Pandanaceous; the Naiadaceous; the

Juncaginaceous; the Alismaceous; the Palmaceous, including 58 genera and 322 species; the Juncaceous; the Philydraceous; the Restiaceous; the Desvauxiaceous; the Eriocauloneous. This work is a most useful aid to DeCandolle's Prodromus; but both drag their slow along at a rate which is by no means satisfactory to the public, or necessary as regards the labour of the authors; especially if we consider the manner in which M. Kunth's labour is performed. An industrious Botanist with the skill of M. Kunth, and a couple of good clerks, would produce four such volumes a year.

Synopsis Plantarum seu Enumeratio Systematica Plantarum plerumque adhuc cognitarum cum differentiis specificis et synonymis selectis, ad modum Persoonii elaborata auctore Dr. David Dietrich, 2 vol. 8vo.

One of the most useful books we ever had was *Persoon's Synopsis Plantarum*, which is now too obsolete to be of any practical value. The man who shall produce such another book will be deserving well of the community of Botanists, for the rate of progress of the works of DeCandolle and Kunth is much too slow to keep pace with the rapidly augmenting number of systematical publications. Those works, too, contain original views and much new matter, which of itself retards the publication of them, especially of the former. A work of much humbler pretensions, which should merely give what has been published by others, in the language of the authors, and without proposing to correct what others have done, or to add to their investigations, would merely gather together into one place the multitudes of species, good or bad, which swarm in the publications of the present day, would be a most welcome addition to our Botanical literature. It is a mere labour of transcribing, and might be published by an active man in a twelvemonth. When then Dr. David Dietrich announced his plan of republishing the excellent Synopsis of Persoon, we at least were eager to buy his book; although, we confess, his adhering to the old Linnean classification said little for his credit as a Botanist, and was an evil augury as to his undertaking. Yet we thought that he might have been constrained to sacrifice his own views to the *auri sacra fames* of bibliopolists, and that a good book might still appear, although in masquerade. Indeed, the example of Sprengel and his miserable *species plantarum* was, in our eyes, a surety that no man would again disgrace himself by following in the track of that most wretched of all compilers.

Eagerly then we ordered Dr. Dietrich's work, although its high price might have deterred a more prudent man. Our readers may then imagine our astonishment when we found it even worse than the work of Sprengel himself; filled with typographical blunders, which were tolerable, and with systematical omissions, which are intolerable. The author assures us that he has diligently used the "Vimariensis atque Goettingensis ingens librorum thesaurus," in collecting materials for his work; and as one of them is among the finest libraries in the world, he must therefore have had access to all that is most important in systematical literature. With what kind of care he has used such materials, if he has used them at all, is apparent from this, that he has only half examined the Botanical Register and the hosts of new species described in it, that Roxburgh's Flora Medica, the original edition, is not, as far as we can discover, even quoted in it, that English botanical books, so important in regard to new species, are in general overlooked, Hooker's icones, for example, one of the most useful of all works, and published in 1836, not having been consulted in 1840, although abounding in species undescribed; and in short, that the whole book is a mere bookseller's job, against which every body should set their face, by refusing to buy it. Nor does it appear that the books which the author has really consulted have been examined with the commonest care. For example: the genus Tournefortia was critically examined by Chamisso, who in 1839 published the result of his observations in the Linnæa; and yet the valuable corrections of this author are passed by, and the species which he then shewed to be spurious, are allowed to remain just the same as if the Linnæa had never appeared.

Why will not some industrious botanist at Berlin or Vienna, with talent, patience, and the materials to be found in those great seats of learning, undertake a task, of all others the most easy to a good systematist, and the results of which would be so valuable to every body? As a speculation it would amply remunerate its projectors, and as a work of science, although it did not contain one word of original matter, it might be an addition to the reputation of any man.

10. LÆLĬĂ pedunculāris.

L. *peduncularis ;* pseudobulbis subrotundis compressis lineâ utrinque elevatâ, foliis oblongis obtusis scapo tereti vaginato brevioribus, corymbo 4-floro, bracteis pedunculo pluries brevioribus, sepalis linearibus obtusis pedunculo brevioribus, petalis oblongis obtusis planis, labelli lobis lateralibus rotundatis intermedio oblongo rotundato plano glabro multo brevioribus ; lineis duabus elevatis.

A Mexican species of great beauty, with the habit of L. rubescens (Bot. Reg. 1840, t. 41), but with rich violet whole coloured flowers. The peduncles are 1¾ inch long, and the flowers themselves are nearly of the same length when closed. The species is very near both L. rubescens and L. acuminata (Bot. Reg. 1841. t. 24), but the flowers are much larger, the flower-stalks much longer in proportion, and the labellum quite round at the point and flat. The pseudobulbs are not at all tetragonous, but are compressed, with only a slight line in the room of the intermediate angle. For specimens I am indebted to Geo. Barker, Esq. of Birmingham. Probably it is the same as a supposed variety of L. acuminata, mentioned at t. 24 for 1841.

11. DENDRŌBĬŪM jūncĕūm.

D. *junceum ;* caulibus fusiformibus erectis apice ramosis, foliis teretibus acutis pungentibus, pedunculis terminalibus bifloris, sepalis obtusis, labelli trilobi lobo medio rotundato emarginato subundulato disco scabro.

Another addition to the set of Dendrobia with terete leaves, imported from Sincapore by Messrs. Loddiges, of whose catalogue it is 356*. It has rather large green flowers, with faint purple veins on the side lobes of the labellum. The stems are fusiform, erect, and branched above the swelling; many of the ramifications being terminated by a pair of flowers.

12. STĔLĬS crassifŏlĭă.

S. *crassifolia ;* folio angusto carnoso semitereti spicâ breviore, bracteis membranaceis cucullatis truncatis, floribus cernuis, sepalis subrotundo-ovatis omninò liberis trinerviis, petalis oblatis membranaceis, labello subtrilobo carnoso concavo laciniâ intermediâ elongatâ acuminatâ.

A singular little plant, imported from the West Indies in August 1841, by Sir C. Lemon, Bart., in whose collection at

Carclew in flowered in the December following. At first sight it resembles S. *ophioglossoides,* from which its half terete fleshy leaves distinguish it at once. The flowers are extremely small and just project beyond the rim of membranous truncate bracts; the sepals are roundish ovate, three-veined, and quite distinct from each other. The petals, which is unusual in this genus, are as thin as the sepals or thinner, and broader than long; the labellum is fleshy, ovate, acuminate, with two small rounded side lobes. The plant has no beauty.

13. MAXILLĀRĬĂ Skīnnĕrī.

M. *Skinneri;* pseudo-bulbis subrotundo-ovatis triphyllis foliis lanceolatis acutis plicatis scapo laxè vaginato ascendente duplo longioribus, bracteâ herbaceâ acutâ cucullatâ ovario multò longiore sepalis patentibus oblongo-lanceolatis acutis, petalis 2-plo brevioribus ovalibus erectis supra columnam convolutis apicibus reflexis; labelli trilobi lobis lateralibus erectis truncatis, intermedio longiore ovato rotundato deflexo, appendice carnosâ linguæformi inter lacinias laterales locatâ; columnâ subtus pubescente. *Bateman MSS.*

"This, the *facile princeps* of all known Maxillarias, has at length flowered in the collection of the Rev. John Clowes, with a vigour and beauty that could not be exceeded in its native haunts. The flowers actually measure upwards of six inches across, from the tips of the lateral sepals, while the latter are nearly an inch and half wide in the broadest part. The colours of this flower are peculiarly delicate, the sepals being pure white, faintly tinged with crimson at the base;—the petals of a more rosy hue, while the lip is almost covered with spots and streaks of the most brilliant carmine. The column again is pure white at the apex, and mottled with crimson spots at the base; while a number of woolly hairs are scattered on its under side.

"The habit of the plant is stately, and its growth free and vigorous, more nearly resembling *M. Deppii* than any other species. It will shortly be figured in the Orchidaceæ of Mexico and Guatemala.

"It is a native of Guatemala, and is another of the brilliant discoveries of the gentleman to whom I have ventured to dedicate it, and who, after an absence of four years in the most glorious countries of the New World, has lately returned once more in safety to the shores of his native land; in which, I must be allowed to remark, there is scarcely a collection of any note that is not more or less indebted to his enterprise and generosity."—*James Bateman.*

I gladly avail myself of Mr. Bateman's permission to publish the foregoing memoranda. The readers of the Botanical Register will remember that another Maxillaria Skinneri has already been described in it (1840, miscellaneous matter, no. 101); but that plant, nearly allied to M. aromatica, is not what Mr. Bateman had called after Mr. Skinner, but a species far inferior in beauty, though very handsome. A figure of it will appear in the Register of next month.

14. ONCĪDĬŪM bicallōsūm.

Lindl. in Benth. Plant. Hartweg. ined.

Among the numerous fine things found in Guatemala by Mr. Skinner, there is not many which are more deserving cultivation than this, which has so much the habit of O. Cavendishianum as to seem a mere variety of it, but which is in reality a quite distinct species. It was also met with by Mr. Hartweg. The flowers are fully two inches in diameter, which is four times the size of O. Cavendishianum; they appear in a dwarf erect raceme, not panicle; they are of a rich yellow, with the sepals and petals bordered with cinnamon colour; the labellum has two very small lateral lobes, and for its crest it has two distinct tubercles, the posterior double, the anterior 3-lobed, and the two separated by a considerable space. The flowers are moreover slightly scented, which is not the case with O. Cavendishianum. Many plants are doubtless in the country; but no one has succeeded in flowering them except Mr. Bateman, who sent a fine specimen to the last meeting of the Horticultural Society.

Notes of a Botanical Excursion to the Mountains of North Carolina.
By Dr. Asa Gray.

This very interesting narrative has appeared in the American Journal of Science and Arts, and affords us several matters for extract:—

1. *Heuchera villosa.*—We collected specimens of *Heuchera villosa, Michx.*, in fine flower, on the 28th of June; although, in the higher mountains of North Carolina, where it also

abounds, the flowers did not appear until near the end of July. This species is excellently described by Michaux, to whose account it is only necessary to add, that the petals are very narrow, appearing like sterile filaments. Although a smaller plant than *H. Americana*, the leaves are larger, and vary considerably in the depths of the lobes. It is both the *H. villosa* and *H. caulescens* of Pursh, who probably derived the latter name from the strong elongated rhizoma, often projecting and appearing like a suffrutescent stem, by which the plant is attached to the rocks; since he does not describe the scape as leafy, nor is this at all the case in the original specimens. The *H. caulescens* α. of Torrey and Gray's Flora, with the synonym, must also be united with *H. villosa*, which in that work is chiefly described from specimens collected by Dr. Short in Kentucky, where every thing seems to grow with extraordinary luxuriance. With these, the plant we collected entirely accords, except that the leaves are mostly smaller, and more deeply lobed; but this character is not constant.

2. *Hedyotis serpyllifolia.*—The banks of the shady and cool rivulets which we crossed every few minutes during our ascent, were in many places covered by the prostrate or creeping *Hedyotis serpyllifolia, Tor. & Gr.* (Houstonia serpyllifolia, *Michx.*,) which continues to flower sparingly throughout the summer. This pretty plant has quite the habit of *Arenaria Balearica;* and the root is certainly perennial. We found it very abundant in similar situations, throughout this mountain region.

3. *Magnolia Fraseri.*—Towards the summit of this ridge, we first met with the *Magnolia Fraseri*, (M. auriculata, *Bartr.*,) which resembles the Umbrella-tree (*Magnolia Umbrella*,) in the disposition of its leaves at the extremity of the branches. This, as well as *M. acuminata* (the only other species of Magnolia that we observed,) is occasionally termed *Cucumber-tree;* but the people of the country almost uniformly called the former *Wahoo;* a name which in the lower part of the Southern States is applied to *Ulmus alata*, or often to all the elms indifferently. The bitter and somewhat aromatic infusion of the green cones of both these Magnolias in whiskey or apple-brandy, is very extensively employed as a preventive against intermittent fevers; an use which, as the younger Michaux remarks, would doubtless be much less frequent, if, with the same medical properties, the aqueous infusion were substituted.

4. *Boykinia aconitifolia.*—On the Iron Mountains, we met with nearly all the species we had collected during the previous day, and with a single additional plant of much interest, viz. the *Boykinia aconitifolia, Nutt.* We found it in the greatest abundance and luxuriance on the southern side of the mountain, near the summit, along the rocky margins of a small brook, which for a short distance were completely covered with the plant. It here attains the height of two feet or more; the stems, rising from a thick rhizoma, (and clothed below, as well as the petioles, with deciduous rusty hairs,) are terminated by a panicle of small cymes, which at first are crowded, but at length are loose, with the flowers mostly unilateral. The rather large, pure white petals are deciduous after flowering, not marcescent as in *Saxifraga* and *Heuchera.*

5. *Clethra acuminata.*—While descending the mountain on the opposite side, we met with *Clethra acuminata,* a very distinct and almost arborescent species, which is well characterized by Michaux. The flowers were not yet expanded; but towards the end of July we obtained from other localities specimens in full flower, while the racemes and capsules of the preceding year were still persistent. The conspicuous bracts, it may be remarked, are as caducous in the wild, as they are said to be in the cultivated plant; usually falling before the flower-buds have attained their full size.

6. *Pyrularia oleifera.*—Towards the base of the mountain we saw for the first time the *Pyrularia* of Michaux (*Oil-nut, Buffalo-tree, &c.* Hamiltonia oleifera, *Muhl.*); a low shrub which is not of unfrequent occurrence in rich shady soil. Its geographical range extends from the Cherokee country on the confines of Georgia, (where the elder Michaux discovered it on his earliest visit to the mountains, and where Mr. Curtis has recently observed it,) to the western ranges of the Alleghanies of Pennsylvania, in lat. 40°, where it was found by the younger Michaux. It flowers early in the season, and the oleaginous fruit in the specimens we collected had attained the size of a musket-ball.

7. *Diphylleia cymosa.*—The *Diphylleia* is confined to springy places, and the margin of shaded mountain brooks, in the rich and deep alluvial soil which is so general throughout these mountains, never occurring, perhaps, at a lower elevation than three thousand feet above the level of the sea. It is a more striking plant than we had supposed: the cauline

leaves (generally two, but sometimes three in number,) being often two feet in diameter, and the radical, which are orbicular and centrally peltate, as in *Podophyllum*, frequently still larger; so that it is not easy (at this season) to obtain manageable specimens. The branches of the cyme are usually reddish or purple, and the gibbous, deep blue and glaucous berries are almost dry when ripe. The latter often contain as many as four perfect seeds; and it is proper to remark that the embryo is not 'very minute,' as described in the *Flora of North America;* but, in the ripe seeds recently examined, is one-third the length of the albumen, as stated by Decaisne, or even longer. The cotyledons are elliptical, flattish, and nearly the length of the thick, slightly club-shaped radicle. The whole embryo is also somewhat flattened; so that when the seed is longitudinally divided in one direction, the embryo, examined in place, appears to be very slender, and to agree with DeCandolle's description. The albumen is horny when dry, and has a bitter taste.

8. *Oxycoccus erectus.*—Along the road-side, we shortly afterwards collected the equivocal *Vaccinium erythrocarpum* of Michaux, or *Oxycoccus erectus* of Pursh; a low, erect, dichotomously branched shrub, with the habit, foliage, and fruit of *Vaccinium*, but the flowers of *Oxycoccus*. It here occurred at a lower elevation than usual, scarcely more than three thousand feet above the level of the sea, and in a dwarfish state (about a foot high); subsequently, we only met with it on the summit of the Grandfather and other mountains, which exceed the altitude of five thousand feet, where it is commonly three or four feet high. We were too early for the fruit, a small, red or purplish berry, which does not ripen until August or September. It has an exquisite flavour, according to Pursh, who found the plant on the mountains of Virginia: but our friend Mr. Curtis informs us that it is rather insipid, and entirely destitute of the fine acidity of the Cranberry.

9. *Amianthium muscætoxicum.*—The *Amianthium muscætoxicum*, which is common in the low country of the Southern States, we here found only in the rich open woods of the *Bluff Mountain*, and in similar places farther south. The flowers are pure white or cream-colour, in a dense and very showy raceme, at length changing to green. The cattle, which roam in the woods for a great part of the year, are sometimes

poisoned by feeding, as is supposed, on the foliage of this plant during the autumn: hence its name of *Fall-poison.*

10. *Geum radiatum.*—The fine and close view of the rugged *Grandfather* amply rewarded the toil of ascending this beetling cliff, where we also obtained the *Geum* (*Sieversia*) *radiatum*, probably the most showy species of the genus. The brilliant golden flowers have a disposition to double, even in the wild state, in which we often found as many as eight or nine petals. This tendency would doubtless be fully developed by cultivation.

11. *Solidago glomerata.*—Near the summit of the mountain, we saw immense quantities of a low but very large-leaved *Solidago,* not yet in flower, which I take to be the *S. glomerata* of Michaux, who could not have failed to observe such a conspicuous and abundant plant, especially as it must have been in full blossom at the time he ascended this mountain. It does not, however, altogether accord with Michaux's description, nor does that author notice the size of the heads, which in our plant are among the largest of the genus.

12. *Leiophylla.*—The only unwooded portion of the ridge which we ascended, an exposed rock a few yards in extent, presents a truly Alpine aspect, being clothed with Lichens and Mosses, and with a dense mat of the mountain *Leiophyllum,* a stunted and much branched shrub (five to ten inches high,) with small coriaceous leaves, greatly resembling *Azalea procumbens.* The much denser growth, and the broader, more petiolate, and perhaps uniformly opposite leaves, as well as the very different habitat, would seem to distinguish the mountain plant from the *L. buxifolium* of the Pine Barrens of New Jersey, &c.; but, although I think the learned DeCandolle has correctly separated the former, under the name of *L. serpyllifolium,* (Ledum serpyllifolium, *L'Her. ined.*) it is not easy to find sufficient and entirely constant distinctive characters; since the sparse scabrous puberulence of the capsule may also be observed upon the ovary of the low-country plant, in which the leaves are likewise not unfrequently opposite; and no reliance can be placed on the length of the pedicels. The synonomy requires some correction: the *Ledum buxifolium* of Michaux (in summis montibus excelsis Carolinæ), and of Nuttall, (so far as respects the plant which "is extremely abundant on the highest summits of the Catawba Ridge," that is, on *Table Mountain,*) as well as the *Leiophyl-*

lum buxifolium of Elliott, (from the mountains of Grenville district, South Carolina,) must be referred to *L. serpyllifolium, DC.*

13. *Amelanchier Canadensis.*—On our way, we cut down a *Service-tree*, (as the *Amelanchier Canadensis* is here called,) and feasted upon the ripe fruit, which throughout this region is highly, and indeed justly prized, being sweet with a very agreeable flavour; while in the Northern States, so far as our experience goes, this fruit, even if it may be said to be edible, is not worth eating. As '*Sarvices*' are here greedily sought after, and are generally procured by cutting down the trees, the latter are becoming scarce in the vicinity of the 'plantations,' as the mountain settlements are universally called.

14. *Astilbe decandra.*—Hitherto we searched in vain for the *Astilbe decandra;* but we first met with this very interesting plant in the rich and moist mountain woods between Elk Creek and Cranberry Forge, and subsequently in similar situations, particularly along the steep banks of streams, quite to the base of the *Roan.* Mr. Curtis found it abundantly near the sources of the Linville River, and at the North Cove, where it could not have escaped the notice of Michaux; and it is doubtless the *Spiræa Aruncus* var. *hermaphrodita* of that author. It indeed greatly resembles *Spiræa Aruncus,* and at a distance of a few yards is not easily distinguished from that plant, but on a closer approach the resemblance is much less striking. Michaux appears to have been the original discoverer of this plant, and from him the specimens cultivated in the Malmaison Garden, and described by Ventenat under the name of *Tiarella biternata,* were probably derived. It was afterwards collected by Lyon, and described by Pursh from a specimen cultivated in Mr. Lambert's garden at Boynton. We noticed a peculiarity in this plant, which explains the discrepancy between Ventenat and Pursh (the former having figured it with linear-spatulate petals, while the latter found it apetalous,) and perhaps throws some additional light upon the genus. The flowers are *diæcio-polygamous,* the two forms differing from each other in aspect much as the staminate and pistillate plants of *Spiræa Aruncus.* In one form, the filaments are exserted to twice or thrice the length of the calyx, and the spatulate-linear petals, inconspicuous only on account of their narrowness, are nearly as long as the stamens: the ovaries are well-formed and filled with ovules,

which, however, so far as I have observed, are never fertilized; and the stigmas are smaller than in the fertile plant, and not papillose. In the other or fertile form, both the stamens and the petals are in an abortive or rudimentary state, and being shorter than the sepals, and concealed by them in dried specimens, are readily overlooked; the stigmas are large, truncate, and papillose, and a portion of the ovules become fertile.

15. *American Quackery.*—We had frequently been told of an antidote to the bite of the *Rattle-snake* and *Copper-head* (not unfrequent throughout this region,) which is thought to possess wonderful efficacy, called *Turman's Snake-root,* after an 'Indian Doctor,' who first employed it; the plant was brought to us by a man who was ready to attest its virtues from his personal knowledge, and proved to be the *Silene stellata!* Its use was suggested by the markings of the root beneath the bark, in which these people find a fancied resemblance to the skin of the Rattle-snake. Nearly all the reputed antidotes are equally inert; such herbs as *Impatiens pallida,* &c. being sometimes employed; so that we are led to conclude that the bite of these reptiles is seldom fatal, or even very dangerous, in these cooler portions of the country.

15. ONCĪDĬŪM ensātūm.

O. *ensatum;* pseudobulbis subrotundis compressis, foliis ensiformibus strictis carinatis, paniculâ longissimâ multiflorâ, bracteis membranaceis acutis canaliculatis, sepalis petalisque lanceolatis acuminatis subundulatis (olivaceis luteo-marginatis), labello (luteo) reniformi emarginato basi auriculato (disco olivaceo), cristâ pubescente subseptemtuberculato tuberculis elongatis, columnæ alis emarginatis utrinque acutis.

A Guatemala plant with singular long sword-shaped erect leaves, and a panicle like that of O. altissimum. The flowers are yellow in the lip, and on the border of the segments, but olive brown in the middle of the lip and the face of the segments. It is a very fine looking plant, the panicle being as much as eight feet long. The downy crest of the lip, with its long tubercles, forms a more obvious mark of distinction than anything else in the flower. Messrs. Loddiges have blossomed it.

16. AMARȲLLĬS Banksiānă.

Supra t. 11.

With respect to this plant Mr. Herbert writes as follows:—

"Your A. Banksiana is not mine. If you will look to my engraving, you will find that my flower is $2\frac{5}{8}$ths inches long, yours only $1\frac{1}{2}$, and it is much redder; and the peduncles of my plant from the Banksian Herbarium are much stouter than those of your plant. I have no doubt of mine being A. grandiflora var. Yours seems to have the bulb and foliage of A. grandiflora, with flowers more like minor and striata."

17. PONĒRĂ striātă.

A very singular Orchidaceous plant has lately flowered with Mrs. Wray of Cheltenham, among a collection sent to that lady from Guatemala by Mr. Skinner. It has the roots of a Neottia, a slender stem three or four feet high, unbranched, and covered with narrow grassy leaves, from four to six inches long, the points of which are obliquely emarginate, and the sheaths rough, like those of Arpophyllum, with little green or purple tubercles. When old the stems become leafless, are closely covered with rugged sheaths, and produce here and there from their axils clusters of two or three sessile flowers, of a pale buff colour, and less than half an inch long. In form they are exactly like a Maxillaria or a Dendrobium; both sepals and petals being striped with bright reddish-brown. The column is short, taper, with a pair of small auricles on each side of the anther-bed, and a dorsal tooth curved over the anther, which is membranous, 4-celled, and contains four pollen-masses adhering in pairs by means of single straps of powdery matter. The labellum is wedge-shaped, slightly downy, curved downwards in the middle, and two-lobed at the apex. It evidently belongs to the rare and little known genus Ponera, (so called from *πόνηρος*, unhappy, in allusion to the starveling appearance of the species), and represents among Epidendreæ the tribes of Malaxeæ and Vandeæ, of which Dendrobium and Maxillaria are respectively the types. The present opportunity induces me to offer an improved character of the genus, and an enumeration of the species hitherto discovered.

PONERA. Sepala erecta, carnosa, lateralia majora, basi producta cum pede elongato columnæ connata; dorsale planum. Petala ovalia, basi angustata, libera. Labellum cuneatum, bilobum, ascendens, arcuatum, cum basi columnæ articulatum, omninò nudum. Columna brevis, teres. Anthera membranacea, depressa, 4-locularis. Pollinia 4, per paria adhærentia; caudiculis binis pulvereis incumbentibus. Stigma subrotundum, excavatum, subbilabiatum.——Herbæ *terrestres, gramineæ, simplices.* Folia *linearia disticha, vaginis verrucosis.* Flores *fasciculati, terminales* (?) *in caule folioso, v. axillares in caule defoliato.* Ovarium *breve, conicum, rectum, sessile.*

Sp. 1. P. *juncifolia* (Gen. & Sp. Orch. p. 113.); foliis subulatis canaliculatis secundis, spicâ subbiflorâ terminali in caule folioso, labello retuso, clinandrio mutico.——*Mexico.*——A single specimen of this rare plant exists in Mr. Lambert's herbarium. It has a stem about a span high, and extremely narrow leaves which, in the dried state at least, are all directed towards one side. The flowers are separated from each other by an interval of nearly half an inch,

Sp. 2. P. *graminifolia* (Bot. Reg. 1839. misc. 15. *Nemaconia graminifolia,* Floral Cabinet, p. 127.); foliis lineari-lanceolatis obliquè emarginatis, spicâ subbiflorâ terminali in caule folioso, labello acuto apice recurvo crenulato, clinandrio mutico.——*Mexico.*——A grassy plant of no beauty, resembling P. striata in the form of its leaves, but different in the structure of the flowers.

Sp. 3. P. *striata;* foliis lineari-lanceolatis obliquè emarginatis, spicâ subbiflorâ axillari in caule defoliato, labello bilobo integro, clinandrii dente dorsali in antheram incurvo.——*Guatemala.*——This differs from the preceding in the lip being two-lobed, not acute and recurved, in its margins being entire and not crenulated, in the anther-bed having a dorsal tooth which curves over the anther, and two much smaller blunt teeth on each side of the stigma; it has also the property of flowering on the old leafless stems instead of the young leafy ones. The flowers are pale buff, striped with brownish orange.

18. ASPĂSĬĂ epidendroïdĕs.

Gen. & Sp. Orch. p. 139. *Bot. Reg.* 1839. *sub t.* 1907.

A great many plants of this species are now in this country, having been sent from Guatemala by Mr. Skinner to his friends, and by Mr. Hartweg to the Horticultural Society; but they do not at present seem disposed to flower with the beauty that is natural to them. I have not seen more than three or four blossoms open at a time, nor do I find that a much larger number have hitherto made their appearance; nevertheless, in the wild specimens from Mr. Skinner the spike is nine inches long, clear of the leaves, and has borne about a dozen flowers. The following accurate account of the species has been sent by Mr. Booth, and renders further remark unnecessary.

"This plant was forwarded to Sir Charles Lemon, Bart., in June, 1840, by George Ure Skinner, Esq., who collected it in Guatemala, near the coast, in a damp climate, varying in temperature from 75° to 80°, where it flowers in January and February. It was also collected by Mr. Hartweg for the Horticultural Society, by whom plants of it and others were distributed to various collections, including Carclew, where it flowered in 1842, about the same time that it usually does in its native country. *Pseudo-bulbs* roundish ovate, deep green, three inches long and rather more than two inches broad, roundish on one side and almost flat on the other; two-edged and two-leaved, with three smaller leaves at the base of each bulb. *Leaves* from six to eight inches long, and about two inches broad; oblong-lanceolate acute. *Scape* nearly as long as the leaves, deep green, two-edged, issuing from the base of the pseudo-bulb, and bearing from three to six flowers at its extremity. *Pedicels* curved at the base so as to become erect by the time the flowers are fit to open. *Flowers* not very showy, but remarkably fragrant. *Sepals* an inch long, the two lower ones reflexed so as to cross one another at the points; the upper one concave and pointed, spreading so as to form nearly a right angle with the column; outwardly they are each of a pale green, inwardly of a dull brown with two or three greenish stripes across, and a little red towards the base. *Petals* erect, similar in size and form to the upper sepal, but slightly notched at the point, and of a pale reddish brown. *Labellum* large, somewhat cordate, bent in the middle and a good deal undulated at the margin, of a white ground with a large irregular blotch of pale pink down the centre, and two white elevated lines extending nearly half its length. At the throat are two small, yellow, fleshy projections. *Column* erect, two-edged, round at the back; the upper part of a pale pink, the lower white; the inner surface appears grooved, with two pink-coloured stripes on either side resembling wings. *Anther* case same colour as the column, nearly round, with a sharp edge on the top."

19. SPIRĀNTHĒS cerīnā.

S. (Sarcoglottis) *cerina;* fusco-olivacea, hirsuta, foliis . , . . hysteranthiis squamis caulis distantibus lanceolatis circa scapum subspiralibus, spicâ laxâ 7-8-florâ, bracteis lanceolatis acuminatis incurvis ovario hirsuto longioribus, sepalis glaberrimis supremo retuso lateralibus obtusis apice concavis, labello basi imâ glabro sagittato supra basin intùs villoso apice obovato obtuso concavo nitido subcrenato.

A singular terrestrial Orchidaceous plant, sent from Guatemala to the Horticultural Society by Mr. Hartweg. It belongs to that section of the genus Spiranthes, of which the old Neottia speciosa is the type, and which has been called by Presl Sarcoglottis, among all which it is at once known by its flowering without leaves, and its dull olive-brown aspect. The stem is altogether about 1½ foot high, covered with white hairs and clothed by rather distant scales which are long, narrow, lanceolate, taper-pointed, and turned round the stem somewhat in a spiral direction. Although the other parts are hairy, the sepals and petals, which are more than an inch long, are perfectly smooth, and shining as if varnished, both inside and outside. Externally they are of the same dull olive-brown as the stem; but inside they are of a clear bright greenish-yellow, the tip being beautifully streaked with bright green veins. This organ is hairy inside below the middle, and at the base is extended downwards into two narrow barbs, which are the calli of Spiranthes proper extending beyond the edge. The lip adheres to the column with so much force that it is difficult to detach it. The column is taper, at the very base smooth, higher up papillose, then hollowed into a narrow smooth cavity, next furnished with a prominent smooth vesicle looking like a tubercle, and finally terminating in an oblong arched stigma, the lower part of which is viscid and the upper dry and membranous. There is nothing horny in this part, or in any of the appendages of the pollen-masses.

20. BEGŎNĬĂ vitifŏlĭă.

B. *vitifolia;* fruticosa caulibus carnosis ferrugineo-pubescentibus, foliis longè petiolatis concavis obliquè ovatis grossè inciso-dentatis suprà glabris subtus subpubescentibus, paniculis axillaribus ferrugineo-tomentosis, bracteis subrotundo-ovatis convexis floribusque dipetalis glabris, ovarii alis semicircularibus æqualibus.

A fine species from Guatemala, with leaves something like those of a Vine in colour, form and size; their stalks are about six inches long. The flowers are white, large, in loose panicles about as long as, or shorter than, the leaves. Sent to the Horticultural Society by Mr. Hartweg.

21. BEGŎNĬĂ crassicaūlĭs.

B. *crassicaulis*; foliis . . . . hysteranthiis, caule carnoso breviarticulato crasso inæquali, paniculis densis multifloris ferrugineo-pubescentibus, bracteis ovatis obtusis convexis floribusque dipetalis glabris, ovarii alis inæqualibus angulo superiore rotundato.

Another Begonia, sent to the Horticultural Society by Mr. Hartweg along with the last, than which it is much handsomer. It has the singular property of flowering without leaves upon short rugged gouty stems. The panicles are about six or eight inches long, densely covered with snow-white blossoms, whose flat circular sepals give them the appearance of clusters of fourpenny pieces. At present the form of the leaves is unknown.

22. LEOCHĪLŬS oncidioīdĕs.

In the miscellaneous matter of 1840 (no. 218) a plant was described under the name of Rodriguezia maculata, which is now become common in collections of Orchidaceous plants, a considerable quantity having been distributed by Mr. Skinner and the Horticultural Society. It had also been called Oncidium macrantherum by Sir Wm. Hooker in the Botanical Magazine, t. 3845, to which allusion was made in this work at no. 33 of the miscellaneous matter for 1841. A further examination of the plant has led to the conviction that its name still requires correction. In many respects it is extremely like a Rodriguezia, and its habit is not at variance with that genus; but there are some circumstances that distinguish it. In the first place, the lip is not parallel with the column, and secondly, the two arms of the column proceed from below the stigma, and not from the upper edge of that organ. In addition to this, the anther is disproportionally large as compared with the column, and there is a honey pore near the base of the lip. All these peculiarities also exist in Leochilus oncidioides, a little known Mexican plant described by Messrs. Knowles and Westcott, for specimens of which I am indebted to the kindness of Mr. Barker. They also occur in the Oncidium carinatum of the same authors, my knowledge of which is again owing to the liberality of Mr. Barker. I also find every thing, except the large anther, in a Dominica plant, formerly described by me in the Annals of Natural

History, under the name of Rodriguezia cochlearis ; and my specimens will not shew what proportion the anther bears to the column in that species. These circumstances induce me to adopt the genus Leochilus, although the name (smooth-lip) is not applicable, none of the species having it smooth, and one at least being remarkably tuberculated. From Oncidium this genus is well distinguished by the position of the arms of the short column, and the honey-pore. The following characters will enable Botanists to arrange the genus and its species in their systematical works.

LEOCHILUS, *Knowles & Westcott.* Sepala et petala patula, basi æqualia, lateralia nunc connata. Labellum indivisum, basi tuberculatum aut laminatum et foveâ melliferâ auctum. Columna brevis, teres, libera, brachio porrecto sub stigmate utrinque aucta. Rostellum ovatum. Anthera columnâ latior ob rostellum prominens, unilocularis, membranacea. Pollinia 2, caudiculâ elongatâ angustâ, glandulâ minutâ ovali.——Herbæ *epiphytæ pseudo-bulbosæ*, Americam tropicam *habitantes*. Flores *parvi racemosi*.

* Sepala lateralia connata.

Sp. 1. L. *oncidioides* (Knowles & Westc. *Rodriguezia maculata,* Lindl. in Bot. Reg. 1840. misc. 218. *Oncidium macrantherum,* Hooker in Bot. Mag. t. 3845.); racemis nutantibus foliis subæqualibus basi laxè et distanter vaginatis, sepalis lateralibus basi tantùm connatis, labello oblongo convexo retuso v. apice angustato rotundato secus axin depresso infra medium cristâ pubescente utrinque elongatâ aucto basi mellifero.——*Mexico and Guatemala.*——Flowers spotted with pale purple, on a dirty semi-transparent ground.

Sp. 2. L. *cochlearis* (Rodriguezia cochlearis, *Lindl. in Ann. nat. hist.* 4. 116.) ; foliis oblongis sessilibus horizontalibus racemo erecto radicali subcorymboso paucifloro duplò brevioribus, sepalo supremo cum petalis obtuso lateralibus acutis semiconnatis breviore, labello obovato cochleari obtuso basi cristâ hippocrepicâ utrinque elongatâ bicarinato.——*Dominica.*——Flowers apparently yellow.

** Sepala omninò libera.

Sp. 3. L. *carinatus* (Oncidium carinatum, *Knowles & Westcott, Floral Cab.* 2. p. 30.); pseudo-bulbis ovatis, foliis lanceolatis, scapo erecto, floribus secundis racemosis, sepalis petalisque linearibus disjunctis, labello lineari-oblongo emarginato basi mellifero cristato : lamellis 2 brevibus truncatis utrinque glandulis 2 filiformibus auctis.—— *Xalapa in Mexico.*——Flowers orange, the petals spotted, the sepals whole coloured; the lip yellow with a few orange spots.

23. SCELOCHILUS Ottonis.

Klotzsch in Allgem. Gartenz. 1841. *Aug.* 14.

Under this name has been published the following account of a new plant of the Orchidaceous order, which has flowered in the Berlin Garden. It appears to be very near Pleurothallis.

"SCELOCHILUS, *Klotzsch.* Perigonii foliola exteriora conniventia, carinata, basi leviter coalita, lateralia labello supposita, usque ad apicem connata, ad basin in calcar obtusum producta ; interiora exteriori postico æqualia. Labellum integrum, inferne attenuatum, basi bifidum, infra basin columna obsolete continuum, ad marginem infra medium bicorne, disco calloso, puberulo, antice bidentato, dentibus obtusis conniventibus. Columna semiteres, apice subemarginata. Anthera unilocularis. Pollinia 2, solida, sphærica.——Herba caracasana, epiphyta ; rhizomate cæspitoso ; pseudobulbis subnullis ; foliis solitariis, coriaceis, carinatis, basi vaginis squamæformibus, conduplicatis involucratis ; racemo radicali ; floribus compressis flavidis.

"S. *Ottonis*, n. sp. Foliis oblongis, coriaceis, læte-viridibus, margine acutis, subundulatis, apice conduplicato-acutissimis, recurvis ; racemo radicali, subramoso, folio parum longiore ; foliolis perigonii interioribus oblongis, obtusis, intus purpureo-striatis, sparsimve pubescentibus."

"This small Epiphyte has, with the exception of the flowers, entirely the structure of Oncidium carthaginense, but the leaves are only five inches long and one inch and a half broad. The flower spike is a little branched, slightly longer than the leaf, round, thread-like, smooth, and covered with sessile, dry, membranaceous, lanceolate and acuminate bracts. The flowers are short-stalked, yellow, compressed, 7 lin. long. The column is without colour, twice as short as the floral envelopes. It was introduced in the year 1840 into the Botanic Garden of Berlin by Mr. Edward Otto. He discovered it on his journey upon the Silla of Caracas, where he found it 5600 feet above the level of the sea, in thick woods, on the trunks of trees. It does not require a very hot temperature, as the thermometer, in the elevation where it grows, seldom rises above $72\frac{1}{2}^{\circ}$ Fahr. ; it seems, likewise, to prefer the shade to the sun. It developed its small yellow flowers for the first time in the month of July."

24. CATASETUM abruptum.

Hooker in Bot. Mag. t. 3929.

This is certainly identical with Catasetum luridum.

25. VANDA cristātă.

Lindl. Gen. & Sp. Orch. p. 216.

This has flowered with Messrs. Rollissons of Tooting; not however very perfectly—for the flowers are greenish instead of being nearly white, and they are solitary instead of being on 3-flowered peduncles. It is a pretty species, from the warm vallies of Nepal. The sepals and petals were greenish, the lip yellow, striped with rich purple asperities and furrows; at the point it is divided into two acuminate lobes.

26. ARUNDĪNĂ dēnsă.

A. *densa ;* labello obovato-subrotundo quadrilobo apiculato laciniis rotundatis, lamellis 3 subæqualibus crispatis rectis, petalis oblongis, foliis subæqualibus.

A beautiful Orchidaceous plant from Sincapore, sent to Messrs. Loddiges by Cuming. It has flowers as large as those of A. bambusifolia, rosy violet, with a crimson-bordered lip, sweet-scented and very handsome, forming a close head, and not a long loose raceme.

27. ERIA mucronata.

E. *mucronata* (Tonsæ); caulibus elongatis flexuosis, foliis distichis lineari-lanceolatis acuminatis, floribus solitariis glabris oppositifoliis, bracteis 3-5 ovato-lanceolatis patentibus coloratis, sepalis petalisque ovatis erectis, labelli subrotundi 3-lobi laciniâ intermediâ emarginatâ ungue scopulifero, lamellis 3 membranaceis integerrimis quarum intermedia in mucrone libero abit lateralibus abbreviatis.

An Orchidaceous plant, with the habit of Dendrobium chrysanthum, found at Sincapore by Cuming, has just flowered with Messrs. Loddiges. Its leaves are long, fleshy, finely acuminate, deep green. The flowers are white, with a faint tinge of pink, deliciously sweet like violets, and produced singly opposite the leaves, on stalks about half an inch long, covered with dull red spreading bracts. The lip is nearly round, 3-lobed, with the middle segment emarginate; in its middle it has three membranous plates, the lateral of which are very short, the intermediate extended into a short horn, which runs up from the surface of the lip a little below its apex. On the foot of the column, just beyond the joint of the lip, is placed a small brush consisting of numerous fine yellow glandular hairs. In addition to the usual number of pollen-masses are a few extra of a very small size.

CYCLAMENS.

The following account of the European Cyclamens, which are excessively confused alike in books and gardens, I owe to the kindness of the Honourable W. F. Strangways, who has studied the genus with great attention for many years. It will enable our Botanical friends to set their herbaria in order now for the first time.

" I have seen all the European species (except some doubtful ones) native in Italy, and cultivated them for many years. The result is, that I believe there are but three good European species. We must begin by dismissing names from our consideration. These three are all European, all more or less ivy-leaved; accordingly all are to be found classed under those appellations. But there are at least three distinct species, so that besides the mistake of a name, there is also a confusion of plants. For this reason Professor Tenore of Naples, who first distinguished the three, distributed the names as follows:

" 1. He gave to the Northern, Alpine, summer-flowering Cyclamen, the name *Europæum*, as the plant of Linnæus, and probably with reason.

" 2. To the Southern, Mediterranean, spring-flowering plant, the name *hederæfolium*, as being the plant so named by Clusius, who I think describes it as Cyclaminus hederæ folio verno tempore florens.

" 3. What was to be done with the plant of middle Italy, which all previous Botanists had seen, but none had distinguished from the two others? He rightly judged it to be a distinct species, and like most Italian botanists, to honour his own town, gave it the name under which it is published, viz. Neapolitanum; though No. 2 is equally common there, and less common elsewhere, and, had not Clusius named it, would have made a better Neapolitanum.

" I have found C. Europæum always fragrant, flowering in Austria in July and August, and as late as September—on the Italian side of the Alps, in the Friuli—never south of the Po. Tenore's C. Neapolitanum is common over all Italy, south of the Apennines of Bologna. I am told it is not found at Genoa or to the westward of that city, but that it is met with in Sicily and North Africa. The white variety of the gardens I refer to this, but never found it wild. This seems to me C. latifolium of Fl. Græca. The northern limit of C. hederæfolium of Clusius is, as far as I know, the northern slope of the mountain of Spoleto, where I found it as late as the end of May. In the low and more southern countries of Italy it begins to flower in March. It is always fragrant, but with a less delicate scent than the others, but of a finer colour, and a flower in shape nearer to C. Persicum. It seems the same as the C. repandum Sibth. of Greece.

"Cyclamen vernum of the gardens seems intermediate between C. coum and Neapolitanum, but I judge only from the figure, not knowing its history. C. lineare is, I believe, now considered fabulous. Mr. Bentham has heard of a *white spring* Cyclamen near Montpellier, which has never I believe been determined. The leaves of No. 2, C. Neapolitanum, differ greatly on different plants, not on the same. I have only found it fragrant near Naples, and then sweeter than No. 3."

The following may be taken as the distinctive characters and synonymns of these plants:

1. *Europæum ;* æstivum, alpinum, odoratum, roseum ; foliis magnis, rotundis, synanthiis ; antheris majoribus luteis.—*Hab.* In Alpibus, fl. Padum et Danubium vix transgrediens. (*C. Clusii, æstivum,* are synonyms).
2. *Neapolitanum ;* autumnale, sylvestre, ferè inodorum, pallens ; corollâ fauce unguiculatâ, segmentis brevioribus ; foliis diversis, hederaceis, cordatis, sagittatis, semper minutè crenatis, ferè hysteranthiis ; antheris minoribus fuscis, radice magnâ, quasi cortice scabrâ obtectâ.—*Hab.* In Apenninis Italiæ mediæ. (*C. latifolium* is a synonym).
3. *Hederæfolium ;* vernale, odoratum, roseum ; corollæ fauce rotundâ planâ, foliis repandis planis, synanthiis, radice lævi minore.—*Hab.* In Italiâ calidiore. (*C. repandum, ficariifolium,* are synonyms).

EPIDENDRUM.

The genus Epidendrum is one of the most extensive of the Orchidaceous order, and already exists in our gardens to the amount of at least two-thirds of the described species. They are however so much increased since the year 1831, when I last reduced them to order, that the genus requires to be entirely remodelled. My views on that subject have already been printed in Hooker's Journal of Botany, volume 3, page 81, to which the reader is referred. Among other sections in that place proposed, is one characterized by the presence of pseudobulbs and the more or less complete separation of the lip from the column, to which, as it includes Sir William Hooker's Encyclia, the name of *Encyclium* was assigned. As the species of that division are common in our gardens, and may possibly be regarded by some as a groupe of generic value, and as they are a good deal confused, and demand a more precise sub-division than that temporarily assigned them in the work above quoted, the present opportunity is taken of laying a revision of the whole of the Encyclia before the reader.

La Llave and Lexarza divided these plants into two sections, distinguished by the racemose and panicled inflorescence, a division I formerly adopted; but I find that although the distinction would probably be valid, if we could always have the species before us in a perfect state, yet that it leads to confusion in consequence of the panicled species often being merely racemose when weak, and ill grown. It is therefore now proposed to found the divisions upon the form of the lip, as a more certain and uniform mark of distinction. This again affords three principal, and three subordinate characters. It is—1. perfectly undivided, or it is, 2. slightly 3-lobed, or it is, 3. split into three deep divisions; these are the differences regarded of the first degree of importance. The third of these sections may be itself subdivided by the form of the middle lobe of the lip, which is—1. acute, 2. rounded, or 3. two-lobed. By this method the following will be the arrangement of the Encyclium division of Epidendrum, as far as I am at present acquainted with the species.

ENCYCLIUM.

Lindl. in Hooker's Journal of Botany, 3. 81.

(*Encyclia*, Hooker in Bot. Mag. t. 2831. Lindl. Gen. et Sp. Orch. p. 111.)

§ I. *Labello integerrimo.*

1. E. *vitellinum* (L. p. 97.* Bot. Reg. 1840, t. 35. Sertum Orch. t. 45.); pseudobulbis ovatis acuminatis diphyllis, foliis oblongo-ligulatis acutis

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* In all future pages of the Register, the reader will be so good as understand that L. succeeded by a page only, means Lindley's Genera and Species of Orchidaceous plants.

basi vaginantibus racemo erecto multifloro brevioribus, sepalis petalisque ovato-lanceolatis acutis subæqualibus patulis, labello lineari apice angustato abruptè acuto. basi calloso et bifoveato semilibero.——*Mexico,* in the region of Lichens and Jungermanniæ.——A most superb plant with flowers of a brilliant orange.

2. E. *ligulatum* (Llave. L. p. 98.) ; pseudobulbis ovatis depressis, foliis lanceolatis subcoriaceis striatis, scapo filiformi, sepalis petalisque ligulatis reflexis, labello obcordato limbo subcrenato, capsulâ glabrâ trigonâ.——*Mexico.*——Flowers purplish brown with a yellowish lip.

3. E. *lividum* (Lindl. in Bot. Reg. 1838. misc. 91.) ; pseudobulbis angustè ovalibus compressis diphyllis, foliis lineari-lanceolatis subundulatis obtusiusculis, scapo paucifloro foliis breviore, ovario triquetro, sepalis erectis herbaceis linearibus mucronatis, petalis spathulatis obtusis æquilongis, labello libero lineari-oblongo obtuso crispo medio tomentoso serie triplici dentium elevatorum intermediâ majore, columnâ triquetrâ apice tricallosâ.——*Colombia.*——Flowers small, dull dingy purple, a little tessellated ; their lip pale dirty yellow, with a few dull purple veins.

*3. E. *articulatum* (Klotzsch in Allg. Gartenz. Sept. 22, 1838.) ; caule repente radicante, pseudobulbis elongato-oblongis gracilibus compressis 2-3 phyllis, foliis linearibus acutis subcarinatis tenuibus, floribus subarticulatim-racemosis, sepalis linearibus acutis erecto-patentibus, petalis spatulatis obtusis extus sordide pallide-ochraceis intus purpureo-variegatis, labello indiviso libero linguiformi basi angustato albido longitudinaliter triseriatim cristato-gibboso ante columnam villoso-barbato margine erecto subinflexo undulatim crispo transversaliter rubro-venoso, columnâ obtuse-trigonâ conicâ apice glandulis tribus flavis instructâ labello duplo breviore, germine trialato.——*La Guayra.*——I am unacquainted with this plant, which, if its lip were not stated to be undivided, I should have supposed to be E. tessellatum.

4. E. *tripunctatum* (Lindl. in Bot. Reg. 1841. misc. 113.) ; pseudobulbis ovalibus compressis diphyllis, foliis ligulatis tenuibus apice recurvis scapo bifloro pluriès longioribus, sepalis patentissimis lineari-oblongis, petalis duplò angustioribus, labello semiadnato obovato rugoso utrinque ultra columnam emarginato, columnâ atropurpureâ apice trilobâ et luteo tripunctatâ.——*Mexico.*——This has long grassy leaves, and a very short scape. The sepals are twice as broad, and much larger than the petals are, and a dull yellow green. The column is deep purple, with three lobes, each of which is tipped with one pale orange-coloured spot. The lip is rather more than half an inch long, not warted, and distinctly emarginate near the apex of the column ; its colour is pale citron.

5. E. *asperum* (Lindl. in Hooker's Journal, p. 6. Bot. Reg. 1838. misc. 36.) ; pseudobulbis ovatis basi subangulatis diphyllis, foliis coriaceis ligulatis carinatis acutis, scapo ramoso pedunculisque subasperis, sepalis patentibus obovato-lanceolatis obtusis, petalis magis cuneatis, labello semilibero cucullato flabellatim cuneato crispo basi callo elevato pubescente obovato medio depresso apice tridentato.——*Mexico and Columbia.*——Flowers dull dirty yellow, with crimson veins pencilled on the lip.

§ II. *Labello trilobo ;* nempè *laciniis lateralibus nanis aut brevibus rotundatis nec intermediæ æqualibus.*

6. E. *Candollei* (Lindl. in Bot. Reg. 1839. misc. 76. *Ep. cepiforme,* Hooker in Bot. Mag. t. 3765.) ; pseudobulbis sphæricis, scapo paniculato,

sepalis petalisque obovato-oblongis, labelli liberi trilobi cucullati lobo medio crispo acuminato, disco elevato calloso sulcato pubescente.——*Mexico.*——The flowers are dull brown, with a dull yellow lip, striped with the same colour.

7. E. ***primulinum*** (Bateman mss.); pseudobulbis . . . . . , foliis . . . . . , scapo paniculato, sepalis petalisque patulis oblongis acutis, labelli laciniis lateralibus nanis erectis acutis intermediâ obovatâ apiculatâ; callo duplici ad basin elevato plano carnoso.——*Mexico.*——Flowers rather large, in a close erect panicle, smelling of primroses.
8. E. ***Linkianum*** (Klotzsch in Allgem. gartenzeit. Sept. 22, 1829. ***E. pastoris***, Link et Otto abbild. t. 12.); pseudobulbis fusiformibus 2-3-phyllis, foliis ensiformibus recurvis racemo paucifloro longioribus, sepalis patentissimis lineari-lanceolatis, petalis conformibus angustioribus, labelli lobis lateralibus minutis erectis intermedio ovato-oblongo crispo venis elevatis sub columnâ pubescente.——*Mexico.*——Flowers small dull yellow, streaked with purple. Lip nearly white.
9. E. ***hastatum*** (Lindl. in Hooker's Journal, 3. 82); pseudobulbis . . . , foliis . . . , racemo striato 6-7-floro, sepalis petalisque discoloribus lanceolatis acutissimis patentibus, labello subrotundo emarginato subangulato basi utrinque supra unguem lobulo aucto venis baseos elevatis.——*Mexico*, in the temperate region.——A species with deep purple striated sepals and petals, and a broad ivory white lip. The latter has generally a short lateral lobe on each side of its base so as to obtain a hastate form, but occasionally the lobes are almost wanting.
10. E. ***Boothianum*** (Lindl. in Bot. Reg. 1838. misc. 7); pseudobulbis compressis imbricatis ovatis subdiphyllis, foliis ligulato-oblongis undulatis apice subobliquis, racemo laxo sub-7-floro basi spathaceo foliis longiore, sepalis petalisque subæqualibus patulis ovali-linearibus acutis fuscovariegatis, labello semilibero rhomboideo acuto utrinque deflexo.——*Cuba.*——Flowers small, greenish yellow, nodding, marked with rich brown spots. Lip nearly white.
11. E. ***pterocarpum*** (Lindl. in Hooker's Journal, 3. 82. Bot. Reg. 1841. misc. 128); pseudobulbis ovalibus compressis diphyllis, foliis . . . racemo angusto, sepalis petalisque subæqualibus linearibus acuminatis patentibus, labelli subrotundi trilobi cordati laciniis lateralibus rotundatis intermediâ multò longiore acutâ basi callo pubescente obscurè tridentatâ auctâ, capsulâ ovatâ trialatâ.——*Mexico.*——This has a long thin raceme of pinkish yellow flowers, and a heart-shaped lip streaked with crimson. It is remarkable for the seed-vessel, when ripe, being extended into three broad sharp wings.
12. E. ***tessellatum*** (Bateman in Bot. Reg. 1838. misc. 9. Hooker Bot. Mag. t. 3638.); pseudobulbis ovalibus compressis 2-raro 3-phyllis, foliis lineari-lanceolatis scapo simplici flexuoso multifloro paulo brevioribus, floribus subpatentibus, sepalis lanceolatis acutis mucronatis petalisque minoribus subspathulatis, labelli liberi trilobi laciniis lateralibus brevibus rotundatis intermediâ majore oblongâ cucullatâ callis tribus cristigeris longitudinalibus munitâ sub columnâ pubescente.——*Guatemala and Mexico.*——Flowers dingy olive brown: with a pale lip tessellated with crimson.
13. E. ***viridiflorum*** (*Encyclia viridiflora*, Hooker in Bot. Mag. 15. t. 2831. L. p. 111.); pseudobulbis ovatis diphyllis, foliis ensiformibus recurvis acutis paniculâ brevioribus, sepalis lateralibus falcatis petalisque linearibus acutis erectis, labello postico apice 3-lobo laciniis lateralibus planis

intermediæ ovatæ crispæ æqualibus, callo basi duplici oblongo carnoso. ——*Brazil.* ——Flowers dull green, marked with dull purple.

14. E. *glaucum.* (Lindl. in Bot. Reg. 1840. misc. 56. ***Epithecium glaucum.*** Knowles and Westcott, Floral Cabinet, t. 87.;) undique glaucedine obductum, pseudobulbis ovalibus compressis monophyllis, foliis ensiformibus acutis pergameneis basi canaliculatis scapo pendulo paniculato brevioribus, sepalis petalisque ovalibus obtusis, labelli linearis apice carnosi trilobi lobis lateralibus rotundatis intermedio ovato medio calloso, columnæ cardine appendice ovatâ obtusâ recurvâ aucto.——*Mexico.*——Flowers small, scentless, green stained with dull purple. The drooping panicle is remarkable, and the glaucous covering of every part much more so.

15. E. *squalidum* (Llave. L. p. 99.); floribus racemosis, sepalis petalisque oblongis acutis patulis, labello rotundato trilobo: laciniis lateralibus obtusis intermediâ subreniformi undulatâ medio crassissimâ 3-costatâ. ——*Mexico.*——Flowers dull yellowish brown, purplish outside. Lip dorsal, whitish.

§ III. *Labello tripartito;* nempè *laciniis lateralibus elongatis intermediæ æqualibus.*

* Labelli lobo medio acuto.

16. E. *Pastoris* (L. no. 7. Klotzsch in Allgem. gartenz. Sept. 22, 1838.); caule repente radicante, pseudobulbis oblongis compressis 2-3-phyllis, foliis linearibus acutis carinatis laxiusculo-subtortuosis, floribus racemosis, perianthii foliolis patenti-subincurvis margine recurvis extus sordide flavis intus lineis longitudinalibus purpureo-fuscis striatis, sepalis lineari-subspatulatis acuminatis, petalis spatulatis acutis, labello trilobo albido dein luteo lobis lateralibus majoribus basi semilunatis integerrimis glabris lævibus basin columnæ orbiculatim amplectentibus lituris transversalibus purpureis medio cordato deflexo minore glabro acuto margine basique recurvo punctis minutis purpureis ornato, columna semitereti fusca ad apicem lutea tridentata dentibus obtusis, pericarpiis elongatis acuto-triquetris.——*Mexico* ——Flowers fragrant, like Vanilla.

17. E. *concolor* (L. no. 12.); foliis in pseudobulbos confertos lenticulares solitariis lato-lanceolatis acutis, scapo filiformi 5-floro, sepalis ligulatis, petalis linearibus, labello tripartito laciniis integris intermediâ majore.——*Mexico.*——A slender plant. Flowers pale yellow, whole coloured, with a striated labellum.

18. E. *fucatum* (Lindl. in Bot. Reg. 1828. misc. 17.); pseudobulbis subrotundo-ovatis cæspitosis monophyllis, foliis ligulatis coriaceis obtusis scapo brevioribus, paniculâ nutante multiflorâ, bracteis ovatis acutis squamiformibus, sepalis petalisque lineari-oblongis tessellatis æqualibus obtusis conniventibus, labelli liberi tripartiti lobis lateralibus erectis linearibus apice rotundatis intermedio acuto ovali multò brevioribus, callo sulcato plano elevato basi lobi intermedii.—— *Cuba.* ——Flowers small, dull yellow, tessellated, with a pink spot in the centre of a white lip.

19. E. *pictum* (Lindl. in Bot. Reg. 1838. misc. 43.); pseudobulbosum, foliis ligulatis coriaceis obtusis dorso rotundatis, racemo erecto paniculato, sepalis petalisque obovato-linearibus subæqualibus, labelli trilobi liberi lobis lateralibus linearibus acutiusculis subfalcatis columnam amplexantibus margine anteriore plicato intermedio ovali acuto crispo multo brevioribus, disco venis elevatis calloso.——*Demerara.*——Resembles *E.*

odoratissimum; with dull yellow flowers, neatly striped with crimson. It is nearly related to *E. chloranthum,* from which its leaves readily distinguish it.

20. E. *crispatum* (Knowles & Westcott, Floral Cabinet, v. 2. p. 79.); pseudobulbis ovatis diphyllis, foliis lineari-lanceolatis carnosis obtusis submucronatis, scapo multifloro, petalis et sepalis linearibus striatis, petalis sepalis minoribus, labello tripartito laciniis lateralibus columnam involventibus intermediâ elongatâ crispatâ (duplò longiore), ovario varicoso. —— *Mexico.* ——"The contrast between the long crisped white labellum, and sepals and petals, is very pleasing and striking."

21. E. *chloroleucum* (Hooker in Bot. Mag. t. 3557. E. *chloranthum,* Lindl. in Bot. Reg. 1838. misc. 28.); pseudobulbosum, foliis coriaceis ligulatis apice rotundatis obscurè bilobis inæqualibus, racemo erecto paniculato, sepalis petalisque subæqualibus lineari-lanceolatis obovatis, labelli trilobi liberi lobis lateralibus linearibus obtusis inflexis intermedio ovato acuminato crispulo multò brevioribus: disco venis elevatis calloso.——*Demerara.*——Flowers pale green without spots, and a white lip.

22. E. *odoratissimum* (L. no. 10.); foliis in pseudobulbos ovatos corrugatos binis ensiformibus, racemo subsimplici, sepalis oblongis petalisque cuneatis patentibus, labelli ferè liberi trilobi lobis lateralibus linearibus obtusis intermedio ovali multò latiore.—— *Brazil.*—— Flowers dull olive brown, bordered with yellow, very sweet.

23. E. *selligerum* (Bateman in Bot. Reg. 1838, misc. 66.); pseudobulbis 2-3-pollicaribus, scapo subramoso, sepalis patentissimis obovatis concavis obtusis, petalis unguiculatis spathulatis acutis, labello semilibero laciniis lateralibus obtusis recurvis planis intermediâ ovatâ acutâ crispatulâ : disco elevato carnoso medio depresso, antherâ bilobâ terminali.——*Mexico.* ——Flowers smell of violets.

24. E. *graniticum* (Lindl. in Hook. Journ. 3. 83.) ; pseudobulbis ovatis attenuatis 2-phyllis, foliis ensiformibus paniculâ multiflorâ brevioribus, sepalis petalisque patentibus lanceolatis subæqualibus acutis, labelli trilobi laciniis lateralibus lineari-oblongis obtusis intermediâ unguiculatâ obovatâ apice inflexo acuto : callo elevato acuminato secus medium canaliculato columnâ sub apice auriculatâ.—— *Guayana.*—— A fine species closely allied to E. flavum. It has a panicle regularly branched up to the apex, nearly a foot and a half long, with each side-branch having from 2-4 flowers. According to M. Schomburgk, the sepals and petals are green dotted with purple, the labellum white with a purple stain at its base, the flowers aromatic, the stem six feet high.

25. E. *pachyanthum* (Lindl. in Bot. Reg. 1838, misc. 42.); pseudobulbosum, foliis lato-ligulatis subundulatis apicè obliquè obtusis dorso rotundatis, perianthio carnoso herbaceo, sepalis lanceolatis, petalis obovato-lanceolatis apice complicatis, labelli liberi trilobi laciniis lateralibus ascendentibus truncatis intermediâ spathulatâ acutâ basi callosâ trilineatâ convexâ inappendiculatâ multò brevioribus. —— *Guayana.* —— A large green-flowered species. Its leaves are thinner and broader than is usual among these Epidendra, and a little wavy at the margin. The flowers are fully two inches in diameter, thick and fleshy, dull green, stained with a dirty reddish brown towards the ends of the sepals and petals. The labellum is a pale straw-colour, streaked along the middle with violet.

26. E. *nemorale* (Lindl. in Hooker's Journal, 3. 32.); pseudobulbis . . . . foliis . . . . . scapo apice densè racemoso sub-10-floro pedunculisque scabris, sepalis petalisque lineari-lanceolatis acuminatis æqualibus paten-

tibus, labelli trilobi laciniis lateralibus semiovatis acutiusculis cucullatis intermediâ maximâ ovatâ; callo ad laminæ basin sito obsoleto antrorsùm evanescente.——*Mexico.*——A beautiful plant, with very large flowers, apparently pink or purple. The sepals and petals are two inches long, and the middle lobe of the lip is an inch long and three-quarters of an inch broad.

** Labelli lobo medio rotundato.

27. E. *bractescens* (Lindl. in Bot. Reg. 1840. misc. 122.); pseudobulbis ovatis cæspitosis 3-4-phyllis, foliis linearibus, scapo debili 3-4-floro, bracteis infimis foliaceis floribus longioribus supremis obsoletis, floribus nutantibus longè pedunculatis, sepalis petalisque lineari-lanceolatis acuminatis discoloribus labello longioribus, labelli liberi lobis lateralibus apice recurvis obtusis subdentatis intermedio unguiculato subrotundo-ovato multò longiore secus unguem elevato sulcato pubescente.——*Mexico.*——This is one of the prettiest of the small species of Epidendrum. The pseudobulbs are exactly ovate, closely clustered, and about as large as a pigeon's egg. The flowers have a beautifully but delicately painted white lip, the gay effect of which is heightened by the contrast with the dingy purple of the long narrow sepals and petals.
28. E. *aciculare* (Bateman in Bot. Reg. 1841. misc. 98); pseudobulbis oblongis diphyllis, foliis linearibus canaliculatis acutis racemo simplici æqualibus, sepalis petalisque lineari-lanceolatis æqualibus acutis, labelli laciniis lateralibus ascendentibus linearibus obtusis apice recurvis intermediâ ovato-oblongâ subundulatâ (pictâ) acutâ.——*Bahamas.*——A pretty little species, with long narrow leaves, a slender erect raceme of six or seven flowers, whose sepals and petals are dull purple, and lip white, enlivened with rosy veins.
29. E. *gracile* (Lindl. in Bot. Reg. t. 1765); foliis in pseudobulbos ovatos corrugatos pluribus levato-ensiformibus, racemo simplici longissimo, sepalis oblongis petalisque cuneatis patentibus, labelli ferè liberi trilobi lobis lateralibus semiovatis intermedio oblongo crispo obtusissimo duplò minoribus disco bicostato.——*Bahamas.*——Flowers green, lip yellow, lined with purple.
30. E. *venosum* (L. no. 13.); foliis ensiformibus obtusis supra et sub pseudobulbos fusiformes nascentibus, racemo striato simplici, sepalis lineari-lanceolatis petalisque angustioribus patentissimis, labello semilibero tripartito: laciniis lateralibus ovatis acutis intermediâ subrotundâ apiculatâ multo majore callo baseos et lineis tribus disci subramosis elevatis.——*Mexico.*——Scape a foot long. Lip half united to the column, white, with elevated violet veins.
31. E. *ionosmum* (Lindl. in Bot. Reg. 1838. misc. 87.); pseudobulbis diphyllis scapo apice simplici racemoso brevioribus, sepalis petalisque coriaceis obovatis concavis obtusis subæqualibus, labelli trilobi liberi lobis lateralibus erectis oblongis columnam amplexantibus apice rotundatis undulatis coloratis striatis intermedio subrotundo emarginato crispo: lineis duabus elevatis prope basin unicâ angustiore apici propiore, columnâ anticè bicorni.——*Essequibo*——The world wants no violets where this plant is found. The blossoms are rather large, a dull reddish green, with the lip delicately streaked with deep lilac.
32. E. *flavum* (Lindl. in Hooker's Journal, 3. 83.); pseudobulbis ovatis attenuatis 3-phyllis, foliis ensiformibus paniculæ pauciflorœ subæqualibus,

sepalis petalisque patentibus subæqualibus lineari-oblongis obtusis, labelli trilobi laciniis lateralibus linearibus truncatis intermediâ unguiculatâ obovatâ nudâ, columnâ sub apice auriculatâ. —— *Brazil.*——Leaves of this rather more than a foot long. Flowers pale yellow, about an inch and a half in diameter. The inflorescence is only panicled at the base, and is probably very often simple.

33. E. *tripterum* (Lindl. in Hooker's Journal, 3. 83.); pseudobulbis ovalibus compressis diphyllis, foliis lineari-oblongis obtusis racemo paucifloro (4—6) subæqualibus, floribus erectis, sepalis petalisque lineari-lanceolatis patulis, labelli trilobi lobis lateralibus linearibus obtusis planis intermedio subrotundo basi angustato undulato venis rugosis elevatis, capsulâ angustâ clavatâ tripterâ.——*Mexico.*——The whole plant when in bloom little more than six inches high. Flowers apparently dull purple, with a pale lip, on long peduncles, and erect not drooping.

34. E. *virgatum* (Lindl. in Hooker's Journ. of Botany, v. 3. p. 83.); pseudobulbis ovatis oblongisve sub-compressis rugosis, foliis binis ternisque convexis subundulatis acutis glaucis unciam latis, paniculâ virgatâ ramis longis gracilibus, sepalis lanceolatis petalisque duplo angustioribus patentibus discoloribus, labelli hastati lobis lateralibus acutis patentibus intermedio subrotundo-obovato acuto; callo maximo rotundato pone basin. ——*Mexico.*——The habit of E. vitellinum, but with more glaucous leaves. Flowers small, dirty green stained with brown, arranged in a very long lax graceful panicle, the branches of which are simple, and sometimes as much as a foot long, with nearly twenty flowers on each. The lip is whitish yellow. Scape sometimes seven feet high.

35. E. *aromaticum* (Bateman Orch. Mex. t.   . E. *incumbens,* Lindl. in Bot. Reg. 1840. misc. 84.); floribus densè paniculatis, sepalis linearibus patentissimis basi angustatis, petalis conformibus sed paulò latioribus, labelli postici lobis lateralibus triangularibus acuminatis intermedio subrotundo-ovato apiculato venis elevatis cristato, callis duobus oblongis secus unguem.——*Guatemala.*——Flowers very sweet; in large pale dull yellow panicles. It inhabits a climate whose temperature varies from 60° to 75°.

36. E. *oncidioides* (Lindl. in Bot. Reg. t. 1623.); pseudobulbis ancipitibus, foliis 2-3 ensiformibus paniculâ laxâ brevioribus, sepalis petalisque obovatis unguiculatis, labelli trilobi lobis lateralibus nanis intermedio subrotundo cuspidato basi 5-costato.—— . . . . . ?——A fine showy plant, with panicles of yellow and brown flowers.

37. E. *alatum* (Bateman Orch. Mex. t. 18. E. *calocheilum,* Hooker in Bot. Mag. t. 3898.); pseudobulbis ovato-oblongis diphyllis, foliis ensiformibus obtusis coriaceis obsoletè striatis paniculâ elatâ multiflorâ brevioribus, sepalis petalisque lineari-oblongis spathulatis uniformibus patentissimis, labello suborbiculari profundè trilobo basi carinato, lobis lateralibus latè ovatis intermedio latissimo lineato margine undulato crispato, columnâ supernè hinc alâ obtusâ.——*Guatemala.*——The flowers, in a large panicle, are light greenish yellow with the sepals and petals tinged with purple at the points, and the lip crimson-veined with a yellow border.

38. E. *altissimum* (Bateman Bot. Reg. 1838. misc. 61.); pseudobulbis elongatis teretibus 2-3-phyllis, scapis ramosis longissimis, sepalis lineari-oblongis acutis, petalis conformibus basi angustatis, labelli liberi lobis lateralibus dimidiatis erectis tortis obtusis intermedio dilatato undulato recurvo apiculato basi bicostato.——*Bahamas.*——Flowers scented with beeswax. Very like E. oncidioides.

*** Labelli lobo medio bilobo.

39. E. *polystachyum* (L. no. 20); foliis oblongis obtusis striato-nervosis geminatim in pseudobulbum insidentibus, scapo polystachyo, sepalis reflexis suboblongis acutis, petalis lanceolato-spatulatis, labelli trilobi lobis lateralibus irregulariter obovatis crenulatis: intermedio minore profundè emarginato.——*Peru.*——Flowers yellow.

40. E. *phœniceum* (Lindl. in Bot. Reg. 1841. misc. no.   . Sertum, t. 46.); pseudobulbis subrotundo-ovatis diphyllis, foliis oblongo-linearibus erectis, scapo paniculâque scabris, sepalis petalisque subæqualibus coriaceis obovato-lanceolatis, labelli laciniis lateralibus oblongis erectis obtusis apice recurvis intermediâ maximâ membranaceâ subrotundâ undulatâ emarginatâ basi bilamellatâ, columnâ obovatâ marginatâ utrinque unidentatâ.——*Cuba.*——Pseudobulbs roundish-ovate and two-leaved, panicle from two to three feet high, large scentless flowers. The sepals and petals are of a leathery texture and deep purple, a little mottled with green specks both inside and out. The lip is nearly an inch and a half long, of the clear bright violet of Cattleya labiata, and with the same deep crimson veins and stains in the middle; it is much undulated, and of a thin, not leathery texture.

41. E. *adenocarpum* (L. no. 16. E. *papillosum*, Bateman Bot. Reg. 1838, misc. 8. Hooker in Bot. Mag. t. 3631.); foliis strictis linearibus carinatis acutis in pseudobulbos pyriformes glaucescentes ternatim insidentibus, scapo erecto simplici multifloro foliis subæquali, floribus distantibus, sepalis ovato-lanceolatis acutis, petalis paulo angustioribus obtusis, labello semi-libero 3-partito, laciniis lateralibus obovatis, intermediâ 3-plo majore obscure quadrilobâ versus basin callosâ venis 5 tenuibus elevatis radiantibus, columnâ bidentatâ, pedunculis papillosis.——*Guatemala and Mexico.*——Flowers greenish-yellow. Lip white, with three short purple streaks.

42. E. *adenocaulon* (L. no. 15); foliis in pseudobulbis binis v. ternis ensiformibus coriaceis, scapo simplici glanduloso, sepalis petalisque lineari-lanceolatis subæqualibus patentissimis, labello tripartito laciniis lateralibus acutis involutis: intermediâ cordatâ emarginatâ obtusâ.——*Mexico.*——Scape 2-3 feet high. Flowers pale violet, with a veiny lip.

43. E. *macrochilum* (Hooker Bot. Mag. t. 3534. Bateman Orch. Mex. t. 17.); pseudobulbis ovatis rugosis diphyllis, foliis lineari-oblongis coriaceis obtusiusculis, sepalis petalisque obovato-lanceolatis patentibus apicibus incurvis, labelli trilobi lobis lateralibus ovatis acutis in columnam incumbentibus intermedio maximo obcordato, disco calloso ecristato sellæformi, columnâ apterâ.——*Guatemala and Panama.*——A very fine plant; one variety having green sepals and a yellow lip, the other having purple sepals with a deep rose-coloured lip. It is very near *E. auropurpureum.* It inhabits the coast, where only it thrives in perfection, flowering in February, March, and April. It is a constant attendant on Cattleya Skinneri. Vulgarly '*Boca del Dragón,*' 'Dragon's mouth.'

44. E. *auropurpureum* (L. no. 14.); foliis in pseudobulbos ternis lanceolatis margine revolutis, scapo erecto multifloro, sepalis petalisque patentibus oblongis cuneatis subæqualibus bicoloribus, labelli tripartiti laciniis lateralibus parvis ovatis integris, intermediâ maximâ cuneatâ dilatatâ altè bilobâ.——*Hispaniola.*——Flowers yellow, with the tips purple. Lip all purple, with a deep red callus in the middle.

45. E. *bifidum* (L. no. 17. Bot. Reg. t. 1879.); foliis in pseudobulbos sub-

ternis lanceolatis, scapo ramoso foliis multò longiore, sepalis oblongis acutis petalisque lineari lanceolatis patentibus, labelli cuneati lobis lateralibus ovatis: intermedio maximo apice dilatato subreniformi sulcato basi in disco biappendiculato.——*West Indies.*——Sepals and petals light green, with a dull purple spot near the end. Lip rose-colour, with the lateral lobes yellow. This is very near E. auropurpureum, and is perhaps the same.

46. E. *varicosum* (Bateman Bot. Reg. 1838. misc. 37. E. *leiobulbon*, Hooker Journ. Bot. iii. t. 10.); pseudobulbis diphyllis, foliis coriaceis ligulatis acutis, scapo simplici gracili brevioribus, sepalis petalisque subæqualibus cuneato-lanceolatis carnosis vernicosis planis, labello libero unguiculato non cucullato trilobo basi pubescente: laciniis lateralibus nanis triangularibus obtusis, intermediâ reniformi emarginatâ venis tuberculatis et varicosis pictâ, callo pulvinato ovato pubescente, columnæ apice trilobæ lobo dorsali crasso cylindraceo obtuso.——*Guatemala and Mexico.*——A small-flowered dull-coloured species. The form of the lip and the varicose veins are very remarkable.

47. E. *Michuacanum* (L. no. 21.); foliis in pseudobulbos pyriformes ternis quaternisve ensiformi-lanceolatis, scapo ramosissimo, sepalis petalisque angustioribus cuneato-lanceolatis, labello tripartito laciniâ intermediâ reniformi bilobâ.——*Mexico.*——Pseudobulbs large. Flowers small, scentless, pale yellow, with a white lip.

48. E. *ochraceum* (Lindl. in Bot. Reg. 1838. misc. 15. t. 26.); pseudobulbis obversè pyriformibus cæspitosis sursum attenuatis 1-3-phyllis, foliis linearibus acutis recurvis scapo æqualibus, spicâ terminali laxiflorâ, bracteis rigidis acutis squamiformibus, sepalis petalisque subæqualibus lineari-oblongis obtusis, labello postico sublibero trilobo medio calloso: laciniis lateralibus inflexis truncato-rotundatis denticulatis intermediâ brevi emarginatâ, callo plano apice tridentato, columnâ apice tricorni denticulatâ, ovario triptero.——*Mexico and Guatemala.*——Leaves grassy. Flowers small, orange yellow, inconspicuous.

⁂ *False Encyclia.*

Encyclia nana }
——— *polystachya* } Pöppig, 2. t. 113. are species of Polystachya.
Encyclia macrostachya. Id. 2. t. 114. is Epidendrum armeniacum.

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28. CRĪNŪM brachynēmă.

Herbert in litteris.

C. *brachynema;* bulbo ovato, foliis glabris viridibus, umbellâ 17-florâ odoratâ pedunculis semuncialibus, germine tenui, tubo 1¾ unc. gracili viridi, limbo subbiunciali albo laciniis circiter semunciam latis, filamentis brevibus (¼—⅜ unc.) albis, stylo purpurascente tubo multùm (an semper ?) breviore, stigmate breviter lobato albo. *W. H.*

Imported by Messrs. Loddiges of Hackney from Bombay, and kindly sent by them to Spofforth, where it has been also since received from the Rev. J. Clowes of Broughton Park, Manchester. *W. H.*

29. CIRRHOPĔTĂLŪM chinēnsĕ.

C. *chinense;* foliis lanceolatis, umbellâ multiflorâ, sepalo supremo petalisque oblongis brevioribus obtusis serrulatis apiculatis: lateralibus lanceolatis, labello linguiformi obtuso carnoso convexo lævi tremulo.

There is no longer any occasion for speculative minds to occupy themselves with the important investigation of the cause that may have led the Chinese to invent strange figures of men and women with their chins in perpetual motion, for here is the explanation of it. We have here a plant from China, one of whose lobes is exactly a tongue and chin, which are so unstable as to be in a state of continual oscillation. The flowers are very large for the genus, in general appearance like those of C. maculosum. The petals and upper sepal are purple, the lateral sepals are yellowish green. The flowers are arranged in a circle, and all look outwards; so that on whatever side the umbel is regarded, it still presents to the eye the same row of grinning faces and wagging chins. Messrs. Loddiges imported it from China.

30. ONCĪDĬŪM nānūm.

O. *nanum;* pseudobulbis nullis, foliis rigidis ovalibus concavis, racemo stricto foliorum longitudine, sepalis petalisque obovatis obtusis incurvis, labello lucido auriculato apice cuneatìm dilatato emarginato, callis disci duobus basilari transverso altero longitudinali trisulcato, alis columnæ angustissimis decurvis apice glaudulosis.

This singular plant has the habit of O. pumilum, to which it is nearly allied. It differs in having very much larger flowers, and in the form of its lip, which is varnished as it were, and bears two large warts, one transverse and one longitudinal, placed at right angles to each other. The form of the wings of the column is almost that of a straight knife-blade directed downwards, and tipped with a lucid gland. Messrs. Loddiges obtained it from Guayana, (1327).

31. ĂNĬĂ bicōrnĭs.

A. *bicornis;* folio oblongo lanceolato carnoso scapo breviore, labelli lobo medio emarginato apiculato ecalcarato basi bilamellato lamellâ alterâ versus apicem interjectâ, antherâ bicorni.

A singular plant, of the Orchidaceous order, imported from Ceylon by the Rev. J. Clowes, to whom I am obliged for a specimen. It has something the appearance of Eulophia macrostachya; the flowers are green except the lip which is bright yellow.

32. ĔRĬĂ acutifŏlĭă.

E. *acutifolia* (Tonsæ); caulibus oblongis abbreviatis, foliis lanceolatis coriaceis acutissimis scapi longitudine, racemo erecto paucifloro pubescentes bracteis oblongis reflexis floribusque glabris, labelli lobis lateralibus, acutissimis erectis intermedio oblongo obtuso concavo glabro: venis tribus elevatis carnosis, clinandrio profundè excavato.

A small unattractive species, imported from India by Messrs. Loddiges, (no. 209). Its leaves are fleshy, deep green, very acute, and between two and three inches long; the raceme is erect, composed of five or six distant flowers, of a dirty white, with violet veins. The lip has a purple base, and a dull yellow tip. It must be classed near E. clavicaulis.

33. ĔRĬĂ panicŭlātă.

Lindl. in Wall. Plant. Asiat. rar. vol. 1. *p.* 32. *t.* 36.

Specimens of this plant have flowered with Messrs. Loddiges. They have exactly the appearance of Dr. Wallich's figure, with long narrow taper-pointed leaves, and panicles of small greenish flowers slightly freckled with purple. They have a line of fine white powder formed all along the middle of the lip, and burying the tubercle which occurs at the base. This powder consists of a vast multitude of pyriform bodies visible only under a microscope, and of the same nature as those which occur on Polystachya. They are in fact extremely short hairs of one joint tapering to the base; in appearance they resemble fine powdery dust.

34. CŒLŎGȲNĒ testācĕă.

C. *testacea*; pseudobulbis ovalibus angustis angulatis, foliis lanceolatis, 3-costatis, racemo pendulo, bracteis ovatis cucullatis ovarii longitudine, sepalis petalisque subæqualibus, labelli oblongi lobis lateralibus rotundatis obsoletis intermedio obtuso: venis 4 papilloso-cristatis.

An Orchidaceous plant from Sincapore, introduced by Messrs. Loddiges. The flowers hang down in racemes about six inches long, and have a dull clay colour, which renders them anything rather than handsome.

35. HIPPEĂSTRŪM organēnsĕ, *var.* compressum.

Herbert in litteris.

H. *organense;* bulbo e majoribus, foliis glaucis vix unciam latis subobtusis erectis, scapo glauco sæpius bifloro, perianthio lateraliter compresso (expansione verticali 6½ unc. laterali 4 unc.) lateritio venis saturatioribus stellâ et radiis inter venas viridibus, tubo brevi, calyptrâ ferè obsoletâ, limbi laciniâ inferiore planâ sepalo superiore 2 unc. lato. *Observ. H. aulicum v. glaucophyllum, Bot. Mag cum H. aulico minimè consentiens H. organensis est potius varietas.* W. H.

This fine plant was sent to Spofforth by the Rev. J. Clowes. It appears amongst Gardner's specimens as H. psittacinum, to which it approximates in colour, but psittacinum has a strong screen and the upper sepal depressed. Mr. Clausen's H. kermesinum, from one of the highest of the Organ mountains, and psittacinum itself may however perhaps range together as varieties of one species. Organense aulicum is very different in foliage and habit, in the green base of the flower not radiating, and its lower petal embracing the filaments. *W. H.*

36. HŌVĔĂ racemulōsă.

Bentham in litt.

H. *racemulosa;* foliis oblongo-linearibus sublanceolatisve supra tenuiter reticulatis glabris subtus tomentosis, racemis axillaribus laxis plurifloris rariùs apice foliiferis, calycis longiusculè pedicellati labio superiore maximo. *Bentham.*

This is a pretty greenhouse shrub, raised by R. Mangles, Esq. of Sunning Hill, from Swan River seeds obtained by Capt. James Mangles. It has narrow leaves, brown underneath, and short axillary racemes of pale purple flowers. It seems nearly allied to H. ramulosa of Cunningham.

37. ISOPŎGŎN rŏsĕŭs.

I. *roseus;* ramis tomentosis, foliis glabris longè petiolatis 3-partitis, foliolis cuneatis lateralibus 3-4-fidis intermedio latiore 5-fido lobis mucronatis, strobilis ovatis sessilibus tomentosis, calycibus glaberrimis elongatis apice villosis.

A handsome Swan River shrub, raised by Robert Mangles, Esq. of Sunning Hill, from seed imported by Captain James Mangles, R. N. It has a rather glaucous rigid foliage, deeply divided into three lobes, which are themselves 3-cleft or 5-cleft, and spiny pointed. The flowers are reddish purple, in cones surrounded by the leaves at the end of the branches. The species is not uncommon in collections, but I have not before heard of its flowering. It is allied to the yellow *I. anemonifolius.*

38. CY̆TĬSŬS Weldēnĭi.

This plant has already been mentioned at no. 122 of the miscellaneous matter for 1839. It is now in flower in the Garden of the Horticultural Society, and proves to be very different from the Scotch Laburnum, notwithstanding its foliage, which much resembles that species. Its flowers are sweet-scented, growing three or four together in an upright, not drooping cluster. It is a small tree, from the mountains of Dalmatia, hardy, and worth adding to the collections of Trees and Shrubs. The poisonous qualities of Laburnum seeds is said to be much concentrated in this plant, " and the scent of the flowers produces headache. The milk of the goats which feed upon the flowers, Baron Welden observes, produces the same effect, only more severely, upon those who drink it." *Loudon's Arboretum et Fruticetum Britannicum abridged, p.* 218. *fig.* 343.

39. CANDŌLLĔĂ tetrāndră.

C. *tetrandra;* ramis junioribus pilosis, foliis oblongis convexis dentatis basi angustatis integerrimis, floribus solitariis inter folia sessilibus petalis obovatis planis emarginatis sepalis mucronatis glabris multò longioribus, phalangibus tetrandris.

This plant has been mistaken in the Gardens for a variety of Candollea cuneiformis; it is however a different and far handsomer species. The leaves are fully two inches long, and broad in proportion, and coarsely toothed. The flowers are four times as large, much like those of Hibbertia volubilis, paler yellow, and with the petals, which are flat, not crumpled, considerably larger than the calyx. Moreover the stamens are regularly arranged in bundles of four each instead of six to nine, as in C. cuneiformis. From the Garden of the Horticultural Society.

40. GESNĒRĂ Suttōnī (with white flowers).

Botanical Register, vol. 19. *t.* 1637.

Messrs. Whitley and Osborn, of the Fulham nursery, have just flowered a white variety of this plant; which is an unexpected and very pretty alteration of the prevailing scarlet in Gesneras. There is the least possible shade of delicate salmon tint upon the flowers, which are otherwise in size and form precisely like those of the original. It was imported from Brazil.

41. CAMPĀNŬLĂ grāndĭs.

Fischer and Meyer.

I cannot find the place where this plant is described. It is now flowering in the Garden of the Horticultural Society, where it has been raised under this name, from seeds received from St. Petersburgh, and is very like a magnificent variety of Campanula persicifolia, with the flowers of C. pyramidalis. Natolia is said by Steudel to be its native country. The flowers are deep blue, of the form of Campanula pyramidalis, and between two and three inches in diameter. There are few hardy herbaceous plants so handsome.

42. BĒRBĔRĬS umbellātă. *Wallich.*

A specimen of this new hardy shrub has flowered in the garden of W. Wells, Esq. of Redleaf, where it has been raised from Nepal seeds. It is something like B. aristata, but has much narrower leaves, very decidedly glaucous underneath. From B. coriaria it differs in the same character, and in the flowers being much smaller, and in long stalked clusters. The branches and spines are remarkably slender. The leaves are narrow, obovate, mucronate, slightly toothed, with very distant veins on a glaucous ground upon the under surface.

43. VERŎNĬCĂ nĭvĕă.

V. *nivea;* racemis erectis lateralibus multifloris, foliis pinnatifidis glabris laciniis linearibus distantibus, sepalis ovalibus obtusis glabris, corolla basi barbatâ laciniis tribus angustioribus, capsulâ obcordatâ dissepimento valvis bilobis contrario.

A native of the mountains of Van Diemen's Land, where it was originally found by Mr. Gunn, from whom I have dried specimens (no. 269). It appears to be half shrubby in its native country, with stems a foot and a half high, stout and stiff. But the plant before me, raised in the Garden of the Horticultural Society, from seeds presented by T. Lloyd, Esq. is hardly six inches high, and much more feeble in habit. The leaves are cut into many narrow segments, and the flowers are pure white. It is a pretty greenhouse plant.

44. BĒCĬŪM bĭcŏlŏr.

From among some Abyssinian seeds sent to the Horticultural Society, from Paris, has been raised a plant of a genus of Labiatæ, which does not appear to be described. It is a shrub with downy stems, ovate-lanceolate, serrated, slightly petiolated leaves, and verticillasters of beautiful flowers arranged in short spikes. The calyx has a broad upper lip, like that of an Ocymum, the lower lip is deep, truncate, bordered with a close fringe of white hairs, and terminated in front by a pair of feeble teeth. The corolla is large, white, with lilac veins; and nearly an inch long. The upper lip is 3-lobed, with the middle lobe split at the point, and the points of all rolled back; the lower lip is of about the same length, oblong and concave. The stamens are four, declinate, bright violet, and about an inch long, The anthers are ovate, with a distinct pair of lobes attached to rather a convex connective. The ovary is almost entirely buried in a fleshy 4-lobed disk; the style is long, violet, follows the direction of the stamens, and ends in a stigma with two equal subulate lobes. Both the style and filaments are twisted spirally before the corolla expands.

This plant evidently belongs to the Ocymoideous Labiate plants; but does not agree with any of the published genera. Its singular calyx seems by itself to mark it sufficiently, independently of which the plant differs from Plectranthus and its allies in the equal size of the two lips of the corolla; and from Ocymum and its allies in the long declinate stamens, distinctly bilabiate corolla, and whole habit. The name Becium, one of the ancient appellations of the Sage (βηκιον) may be taken for it.

BECIUM. Calyx bilabiatus; labio superiore dilatato decurrente inferiore truncato pilis brevissimis densè ciliato apice biseto. Corolla bilabiata, tubo recto calyce longiore intus pubescente, labiis æqualibus superiore 3-lobo laciniâ mediâ fissâ convexo apice et margine revoluto inferiore oblongo concavo. Stamina libera, longissima, declinata, ante anthesin cum stylo circinata; suprema basi dilatata villosa inferiora lævia filiformia; antheræ ovatæ, obtusæ, glabræ. Ovarium disco 4-dentato omnino immersum. Stigma 2-lobum laciniis subulatis.

Sp. 1. *Becium bicolor.* Frutex pubescens. Folia ovato-lanceolata, serrata, impunctata. Verticillastri subbiflori, spicati, bracteis cordatis undulatis acuminatis deciduis coloratis calyce longioribus. Corolla alba venis lilacinis. Stamina lilacina.

45. BARKĔRĬĂ spectābĭlĭs.

Bateman in litteris.

B. *spectabilis;* racemo multifloro laxo, labello ovato-lanceolato tricarinato, sepalis lineari-lanceolatis, petalis ovatis acuminatis.

Under the name of Flor de Isabal this beautiful plant forms one of the votive offerings of the Guatemalese. Mr. Skinner long since sent living plants to England, and more recently Mr. Hartweg, one of whose specimens has just flowered in the garden of the Horticultural Society. It forms a tuft of cylindrical stems about four or five inches high, each of which bears two fleshy lanceolate acute leaves, separated from each other by intervals of about an inch. The raceme rises out of some brown dry sheaths, and in the plants that have flowered bears about six most lovely nodding blossoms: but according to a memorandum from Mr. Skinner now before me it varies in length from three inches to a foot: and indeed I possess a wild specimen from that gentlemen with as many as twelve flowers in a raceme. The expanded flowers are nearly three inches and a half wide, their colour is a bright lilac; the sepals are linear-lanceolate, the petals ovate-lanceolate in form and unspotted: but the labellum is white at the base and in the middle, lilac at the edge and point, and richly marked with small blood-red spots. Along its middle, below the column, are five purple lines, which pass into three elevated colourless ridges, beyond the place where the anther touches the lip. It is with Cattleyas, and such beautiful plants that this charming species is worthy to be arranged.

46. HEXADĒSMĬĂ fasciculātă.

Adolphe Brongniart in Ann. Sc. xvii. *p.* 44.

Under this name has been just described by M. A. Brongniart, a Mexican Orchidaceous plant, found in that country by Linden, and which has flowered in the Garden of Plants. There is no doubt about its being the same as Mr. Bateman's unpublished genus Hexopia, whose name must therefore be cancelled. The following is the description of the plant in the Annales des Sciences.

HEXADESMIA. Sepala subconniventia, supremo oblongo-lanceolato, lateralibus triangularibus infra cum basi columnæ in pseudo-calcare unitis. Petala sepalis subæqualia oblonga. Labellum cum basi productâ columnæ articulatum, subintegrum, plicatum. Columna petalis brevior, semiteres, apice clavata, clinandrio auriculis lateralibus et dente posticâ uncinatâ marginato, basi foveolâ nectariferâ excavata. Anthera operculæ formis, denti marginis clinandrii affixa, carnosa, sexlocularis. Pollinia 6 æqualia, 4-posticis caudiculis longioribus replicatis, 2 anterioribus caudiculis brevissimis, tria ad utrumque lobum antheræ pertinentia et interse caudiculis unita, facillimè glutine apicis caudiculorum in fasciculo unico connexis.

Herba mexicana ab indefesso viatori Linden Musæo Parisiensi allata, habitu Dendrobia quædam asiatica et formâ floris Apora præsertim referens, sed polliniorum structurâ cum Epidendreis quadrans eorumque numero ab aliis hujusce familiæ generibus, excepto Hexameriâ R. Br. è tribu Malaxidearum, distincta.

H. *fasciculata.* Caules e rhizomate nascentes, erecti, basi graciles squamis vestiti, superius incrassato-subspathulati bulbosi; pseudobulbis stipitatis compressis elliptico-lanceolatis apice, diphyllis. Foliis oblongis 5-6 pollicaribus, pollice lata, coriacea, plana, apice emarginata. Flores terminales 2-4 fasciculati subsessiles, e spatha communi brevi exeuntes, pedicellis ovariisque gracilibus incurvis, squamis obtectis.

48. CATASĒTŬM globiflōrūm.

Hooker in Bot. Mag. t. 3942.

C. *globiflorum ;* spicâ elongatâ multiflorâ, perianthio globoso, sepalis petalisque subconformibus ovatis acutis concavis arctissimè imbricatis, labello hemisphærico-globoso, ore contraeto oblongo inferne dilatato basi columnæ longitudine denticulato, columnæ brevis setis rectiusculis.—*Hooker, l. c.*

A Brazilian plant, very much like *C. Hookeri*, and perhaps a variety of it. The sepals and petals are olive-brown, and closely applied to a glaucous globular labellum, the greater part of which is uncovered. It is stated in the Botanical Magazine to have flowered in the Glasnevin Botanic Garden.

Upon Albumen, especially that of Leguminosæ, by Doctors Schleiden and Vogel.

(Abstracted from the German.)

That the presence or absence of albumen in plants is of great importance, has been shown by the researches of Mirbel, Brown, and Brongniart; and it has been made by Lindley to form an important element in the grouping and distinguishing natural families. The foundations of the science of embryology in plants were laid by Malpighi, but it has been neglected by the followers of Linnæus, who, in fact, have degraded a great science to a pretty game for filling up idle hours. Brown was the first of the present day to revive and carry out Malpighi's views, which had been more or less misunderstood by those who had followed him.

1. *On the formation of Albumen.*—The essential parts of the ovule are the nucleus and embryo-sac, which are never absent. The integuments are uncertain; where the integuments unite with the nucleus, the parts is called chalaza. In Canna and most Compositæ this union is very extensive, and the integuments are only seen at the point of seed. In the embryo-sac, a portion of cellular tissue is often developed and again absorbed; this is Mirbel's quartine. In seeking for albumen, the positions in which it might be expected to be found are—1. in the integuments—2. the nucleus—3. the embryo-sac—4. the region of the chalaza. It is, however, never found in the integuments, but in all other parts. In Monocotyledons, albumen is mostly found in the embryo-sac, reducing the walls of the nucleus, by pressure, to a thin membrane. It is difficult to say whether the membrana interna of the ripe seed is formed from the integumentum internum of the ovule, from the membrana nuclei, or from a combination of both. It may be sometimes formed from each. In the process of growth the embryo-sac becomes filled with cellular tissue, which produces the albumen. Examples may be seen in Philydrum lanuginosum, also in all Aroideæ, Gramineæ, Cyperaceæ, Liliaceæ, Palmaceæ, &c. Scitamineæ are an exception, for excepting Canna, they develope their albumen in the nucleus, as in Maranta gibba. The development of Canna is altogether peculiar. The albumen is developed in the region of the chalaza, and although five layers can be distinguished they can none of them be identified. In Dicotyledons the

growth of the albumen is not so uniform, in these whole groups of families being characterised by its presence or absence. The albumen formed in the embryo-sac is called Endospermium, while that formed in the nucleus is called Perispermium. When the embryo-sac does not fill the nucleus, and the embryo does not fill the former, both perisperm and endosperm are developed, as seen in Nymphæaceæ and Hydropeltideæ; also in Piperaceæ. In Chelidonium majus, the endosperm is alone developed: and this is the case with all Papaveraceæ, Ranunculaceæ, Umbelliferæ, Rubiaceæ, and principally the case in all the orders of Lindley's group Albuminosæ. The perisperm is probably developed in all families which have what is called albumen centrale.

2. *On the Structural Relations and Extent of the Albumen.*—In most cases the albumen has the form of the seed on a reduced scale. A remarkable deviation is seen in Convolvulus. The endosperm consists of a double spindle-shaped body, with two wing-like appendages, between which the cotyledons are placed. In many of the Scrophulariaceæ, the embryo-sac forms little cavities or bags, which, in the ripe seed, remain as appendages to the albumen. Albumen, as well as all other parts of plants, consists essentially of cellular tissue, the cells of which have contents. Cytoblasts are seen only seldom in the cells of albumen, but may be seen very well in Zea Mays. The cells present all the varieties of ordinary parenchyma, but never any spiral structure. The walls of the cells are generally thin, simple, without evident configuration, as in the case of the albumen farinaceum and carnosum. The walls are often thick and grown together, so that the cells look as if they were cut out of a homogeneous mass, as in the albumen oleosum and corneum. In the Rubiaceæ there are thin spots in the horny albumen, as though pores were forming; the same is seen in the horny albumen of some Palms. In the thin-walled cells pores are very evident. With regard to the general arrangement of the cellular tissue, it has a ray-like texture, from its being developed from the walls of the sac towards the embryo, or if that is very small towards the centre of the albumen. With regard to the contents of the cells of albumen, they do not differ much from those of parenchyma in general. In Alpinia cardamomum, formless masses are observed in the cells of the perisperm. Between the cells of Bothos rubri-

caulis are found larger cells containing some crystallized salt.

3. *On the Albumen of Leguminosæ.*—If any one should examine the seeds of Cassia, Gleditschia, and Tetragonolobus, he would find it difficult to account for the fact that in recent times albumen had been denied to Leguminosæ. Gærtner originally made exceptions to the statement that they had no albumen; it was confined, by Jussieu, to the orthoblastic genera. DeCandolle called the albumen of these plants an Endopleura tumida, and most botanists have followed him. Guillemin and Perrottet, in the "Flora of Senegal," sometimes call this substance albumen, sometimes Endopleura tumida. Braun, in a review of that work, pointed out the fact of the existence of albumen in this family, but did not carry out his views. In order to investigate this subject, and arrive at the following conclusion, more than 300 different kinds of seeds of Leguminosæ have been examined.

3 *a. Formation and Presence.*—The ovule of Tetragonolobus purpureus has two integuments covering the nucleus. The embryo-sac developes in the vicinity of the micropyle and grows from thence out towards the chalaza. In Brachysema undulatum, the integuments and nucleus are not developed till after the embryo-sac and embryo appear, and the internal membrane disappears with the absorption of the nucleus. In Tetragonolobus the nucleus is first absorbed, then the internal membrane, the entire length of which disappears at the same time. The embryo, in its development, constitutes a transition to that irregular form seen in Lupinus. Ordinarily that part of the pollen tube which has projected into the embryo-sac becomes changed into a part of the embryo; but in Lupinus only a part of the tube becomes organized with the embryo, the remaining portion forming a little cord-like body, called by Mirbel the suspensor. As the embryo-sac extends, it forms cells out of the mucous and saccharine solution in its inside, the cells being developed around the cytoblasts in the manner described by Schleiden. At the same time this cellular tissue is forming the embryo increases in size, and either absorbs this or presses it more or less together; in the latter case it is the seat of the deposit of albumen. This is often the case, and in most instances the nucleus is entirely absorbed. Hence the albumen of

Leguminosæ is endosperm; its greater or smaller thickness depends on the greater or smaller size of the embryo. In the whole family there is a very decided fluctuation in the presence and quantity of this albumen; so that the suggestion of Braun to distinguish the genera of Mimoseæ by it is quite untenable. In fact there are some very good genera, as Lupinus, in which some species have it and some have none. Lupinus tomentosus and L. macrophyllus both have albumen, L. tuberosus none. In Ononis altissima, it is scarcely to be seen, whilst in O. aculeata it is very abundant. Æschynomene fluminensis has a maximum, whilst Æ. podocarpa has a minimum. Many more examples would undoubtedly occur in large genera, as Trifolium, &c. In Acacia some species have abundance, others none. But if the existence of albumen fluctuates, much more do its relative quantity and its relative position to the embryo. Its development is least decisive in the whole family on the edges of the cotyledons; in Papilionaceæ least at the hilum and in greatest quantity between the radicle and cotyledons, and in the commissure between the cotyledons; in both of which places it may be beautifully seen in Scorpiurus sulcatus, yet it is sometimes wanting here when it appears on the sides of the cotyledons. The quantity of albumen has been supposed to be in an inverse proportion to the size of the plumule, but this is not a rule even in the genera, to which it was supposed to apply. Nor is a large quantity of albumen accompanied with simple leaves of the plumule, as was supposed by Braun. In opposition to the oft-repeated assertion of Adanson, Jussieu, and DeCandolle, it is found that all the principal divisions of Leguminosæ, except Swartzieæ and Geoffreæ, of which only one seed was examined, possess albumen.

3 *b. Structure.*—If a layer of albumen is cut, it is transparent, almost of a horny consistence, becomes gelatinous in water, is almost insipid to the taste, and consists of vegetable jelly (P. pflanzengallerte of Schleiden) or mucus (P. pflanzenschleim of Berzelius). In most cases the colour is whitish, in some beautifully white, as Cytisus, Kennedya, &c. When it is transparent, so long as the testa remains on, it has a variety of colours. In Bauhinia microphylla, the albumen was of a wood-yellow colour. Where the albumen is tolerably well developed, three layers are observed; first, that next the testa with regular cells, well defined walls, and ordinarily

granular mucous contents: the cells are arranged in only one row. This layer is well seen in Astragalus hamosus, Sesbania cannabina, &c. In the second layer there is a number of variously formed cells, constituting the great bulk of the albumen; these are succeeded by a third row placed next the cotyledons, which are small and without granular contents. In the middle layer the cells are either very sharply defined walls, or they are lost in jelly. The former are most common in Papilionaceæ, the latter in Cæsalpineæ. When the walls of the cell are evident, jelly is found in the inside of the cell, often obstructing the entrance of the light, as in Sesbania cannabina, &c., it is entirely obstructed in Securigera coronilla. Frequently the cavity of the cell presents a star shape, from the formation of pores in the jelly, or gelatine, as in Cytisus, Laburnum, &c. Intercellular spaces are seen in Amorpha fruticosa, &c., which are also filled with jelly. These form a transition to those in which the cells are entirely embedded in jelly, as Gleditschia triacanthos. The walls are not to be distinguished but by dropping on them sulphuric acid, by which means the jelly is dissolved out. The interior of the cells is filled with mucus (Schleim), a term used to distinguish it from jelly and starch. This mucus is composed of globules, which are coloured brown yellow by tincture of iodine. In Cassia fistula resinous globules were found, and in Mimosa pudica, crystals in the same position. This jelly or gelatine between the cells, seems to be identical with Mohl's intercellular substance, and it may be conjectured to be the basis from which the cells of the albumen themselves are formed.

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49. CALLIPSY̆CHĒ eucrosioīdĕs.

We have been favoured by the Hon. and Very Rev. the Dean of Manchester with the following definition of a new genus of Amaryllidaceous plants, which has produced its flowers in the garden at Spofforth.

CALLIPSYCHE. [*Subord.* AMARYLLIDEÆ, § PANCRATIFORMES.] Germen ovulis complanatis biseriatim cumulatis, tubus declinatus brevis, limbus regularis a latere compressus sepalis cymbiformibus petalis latioribus apice subreflexis imo depresso genitalia amplexo, filamenta libera [basi tuberculo munita] ori tubi inserta teretia prælonga, stylus cum filamentis primùm deflexus denuo sursum curvatus, antheræ medio circiter affixæ versatiles, stigma rotundatè dilatatum. Bulbus foliis petiolatis. Eucrosiæ affinis tuberculis pro coronâ. *W. H.*

C. *eucrosioides;* bulbo subrotundo, foliis paucis viridibus laminâ pedali circ. 4-unc. latâ tessellato-lacunosâ, scapo 10-floro glauco tereti superne minore circ. 28 unc. spathâ et bracteis marcescentibus, pedunculis viridibus æqualibus circ. uncialibus, germine oblongo trigono trisulco viridi loculis circ. 23-spermis, tubo viridi declinato vix $\frac{1}{4}$-unc. mellifluo, limbo subcoccineo vix unciali petalis obtusis, genitalibus pallidè viridibus, stylo $4\frac{3}{4}$ unc. filamentis circ. $4\frac{3}{8}$ unc. inæqualibus imo producto. *W. H.*

The bulbs were brought from S. Blas or S. Felipe, on the West Coast of Mexico. They appear to like shade and heat. At Spofforth they flowered without leaves, in the month of March. Mr. Herbert thinks that he has the same bulb from Guatemala.

50. PĬĔRĬS ovalifŏlĭă.

Don gen. syst. 3. 832. *DeCand. Prodr.* 7. 599.

A fine evergreen shrub, native of the North of India, where it was found by Dr. Buchanan Hamilton and afterwards by Dr. Wallich's people. It has short-stalked, oval, toothless, taper-pointed leaves, firm in texture, and glossy on both sides, but a little hairy on the underside. The flowers are white, tinged with pink, and appear in one-sided racemes, at the end of short lateral branches. The corolla is almost cylindrical, a little angular, and slightly contracted in the middle. It is reported that the shoots of this species are poisonous to the goats that browse upon them, on which account it was originally called Andromeda capricida, a name which ought to have been retained. We are not aware that it has flowered before in this country: the specimen now described was sent by S. F. Phelps, Esq. of Warminster, whose plant is 12 feet high in a pot, branching out very gracefully. It may be expected to be hardy. In Nepal it is reported to form a tree 30 or 40 feet high.——It is to be regretted that the contrivers of Botanical names should have so little skill, to say the least of it, in devising them. The author of Pieris, fancied it to be the name of one of the Muses! not having remained long enough at school to learn that they were called Pierides, because they were born in Pieria. As DeCandolle truly says, the name as it stands is nonsense.

51. LĬLĬŪM testācĕūm.

In the Nursery of Messrs. Rollinsons there is a Japan Lily with the form of L. speciosum, and with the same revolute petals, but destitute of the glands and tubercles so conspicuous upon that species. The stamens are much shorter than the petals. The surface is shining, like the finest porcelain. It is very handsome and distinct, but we have not had an opportunity of examining it sufficiently to form a specific character for it. The leaves are linear, 3-ribbed, and somewhat narrowed to the base.

52. CALĀNTHĒ Masūcă.

Lindl. Gen. & Sp. Orch. p. 249.

C. *Masuca;* scapo erecto foliis latis oblongis petiolatis acuminatis longiore, racemis multifloris, labello tripartito basi tuberculis seriatis 5-cristato, seriebus intermediis elevatioribus ; laciniis lateralibus linearibus subfalcatis intermediâ cuneatâ emarginatâ in unguem linearem laciniis lateralibus æqualem angustatâ, calcare longissimo falcato clavato, columnâ brevi obliquâ anticè bifoveatâ, ovario pubescente.

This very fine terrestrial Orchidaceous plant has flowered with Messrs. Rollinsons. It has deep violet flowers, with a rich purple lip, and may be regarded as the handsomest of the violet flowered species. It is found in many parts of India, viz. Nepal, Bengal, Ceylon, and probably Java.

HIPPEASTRUM organense.

See No. 35. p. 39, of this volume.

At the place above referred to, the reader is requested to *read* " varieties of one species: organense. Aulicum is very different," *instead of* " varieties of one species. Organense aulicum is very different."

53. ARISTOLŎCHĬĂ Gīgās.

A. *Gigas;* foliis subpubescentibus late cordatis acuminatis, calycis maximi tubo costato piloso limbo maximo cordato-oblongo in caudam longam angustato intùs subochraceo purpureo-maculato.

A most extraordinary twining plant from Guatemala, sent to the Horticultural Society by Mr. Hartweg. The tube of the flower is six inches long, the limb rather more, and the tail which terminates the latter longer still. It is very handsome, as well as very singular, and when well managed will be one of the most extraordinary exotic productions to be seen in our stoves. The flowers have a strong unpleasant smell of old Tobacco.

54. SIEVĒRSĬĂ elātă.

Royle Illustrations, &c. p. 207. *t.* 39. *f.* 1.

Rather a handsome, hardy herbaceous plant, raised in the Garden of the Horticultural Society from seeds from Nepal, presented by the Hon. Court of Directors of the East India Company. It has deep green pinnated leaves, with roundish coarsely crenated lobes, gradually diminishing in size to the base, and occasionally interrupted by small entire lobes. The flowers are large, handsome, deep yellow, in three or four flowered panicles. The number of carpels is about fifteen.

THE SPECIES OF COBURGIA.

We are indebted to the Hon. and Very Rev. the Dean of Manchester for the following enumeration of the species known to him of this noble genus of Amaryllidaceous bulbs.

1. C. *incarnata;* fol. glaucis unc. latis obtusis, scapo sub 4-floro, germine ovali, tubo decurvo 3-4-unc. inferne tenui superne subventricosè ampliato, perianthio rubro tristi fulvescente, maculâ magnâ in limbi laciniis viridi.
   Var. 1. *Quitensis;* per. sub 5-unc. stylo stamina subæquante. *Humb.*
   Var. 2. *Peruviana;* spathâ deciduâ; per. circ. 4-unc. stylo limbum superante. *Ex icone a Matthews pictâ.*
2. C. *trichroma;* foliis glaucis biped. $\frac{5}{8}$ unc. latis obtusis, scapo sub-5-floro, germine ovali, per. $2\frac{1}{2}$-3 unc. tubo superne subventricoso pallidè miniato, limbo ejusdem coloris margine pallido, maculâ angustâ semunc. viridi. coron. dent. viridi apiculatis. *In Andibus latè diffusa.*

2*. C. *acuta:* (specimina sicca duo ex Peruviâ, ambo) scapo 17-unc. 10-floro, fol. subsesquipedalibus vix semunc. latis superne valde attenuatis, spathâ persistente $2\frac{1}{2}$ unc. pedunc. brevibus, per. (fulvo?) vix $2\frac{1}{2}$-3 unc. tubo superne (in sicco) $\frac{1}{4}$ vix $\frac{3}{16}$ lato, coronâ brevi dentibus subintegris

(miniatis?) fil. semuncialibus stylo semunc. brevioribus, limbi lac. angustis stylo brevioribus.

3. C. *variegata*; (Pancratium variegatum, Ruiz.) "bulbo rotundo, foliis" (glaucis?) "a medio ad apicem recurvis, flore longissimo spithamæo" (i. e. 7-9 unc.) "ex luteo roseo albo viridique variegato, cor. dent. viridibus, germine oblongo trigono." Ruiz. Ex *Limæ* hortis, ubi hodie non reperta est. Mihi ignota, si revera fl. spithamæo.

4. C. *Chachapoyensis*; (forsan C. variegatæ var. ex icone a Matthews pict. absque foliis) bulbo rotundo 3-unc. collo cylindrico, spathâ latâ subtriunc. 6-florâ, ped. brevibus, germ. trigonè oblongo, per. 5-unc. tubo inferne rubro superne semunc. lato non ventricoso subluteo, limbo unc. subluteo, apiculo albescente circumvirente, cor. dent. bifidis, limbo stylum $\frac{5}{16}$ unc. stylo antheras superante. Ex *Chachapoyas in Peruviâ.*

5. C. *versicolor*; bulbo triunciali subrotundo collo producto, foliis glaucis attenuatè subobtusis $2\frac{1}{2}$-pedalibus biunciam latis canaliculatis dorso ecostato, scapo ancipiter tripedali inferne sesquiunciam lato, spathâ deciduâ, perianthio versicolore ex miniato fulvo-albescente, tubi parte inferiore unciali tenui curvatâ, superiore sesquiunciali ventricosâ, limbo unciali laciniis acutis subsemunciam latis maculâ extus magnâ viridi, intus albâ viridi-marginatâ, coronâ dentibus bilobis recurvis acutis viridibus, filamentis albis limbo brevioribus, stylo limbum superante. *Andibus Peruvianis* a dom. J. Maclean effossa Spofforthiæ mense Julio floruit, C. variegatæ affinis.

6. C. *fulva*; (Bot. Reg. 18. 1497.) bulbo rotundo collo cylindrico dodrantali, fol. ultra triped. $1\frac{3}{4}$ unc. latis subobtusis pallidè subglaucis canaliculatis arcuatis vel a med. deflexis, scapo ancip. ultra biped. spathâ persistente 5-florâ. ped. brevibus, per. fulvo $4\frac{1}{2}$ unc. apicibus viridibus stylum non æquantibus, tubo superne angustè subventricoso subarcuatè deflexo, capsulâ profundè trilobâ inferne dilatatâ apice parvulo, seminibus planis alatis nigris.

7. C. *læta*; fol. lætè viridibus nitidis semunc. latis triped. canaliculatis arcuatis inferne 6-7-unc. columnatè vaginantibus, flore ignoto. Ex *Peruviá* nondum floridum, sed proculdubio Coburgiæ species.

8. C. *Langensis*; bulbo ovato, fol. vix extra terram vaginantibus viridibus subbiped. $\frac{1}{4}$-$\frac{6}{15}$-unc. latis, scapo sesquiped.

ancip. 2-4-floro, ped. in seminando 1-2-unc. caps. ut in C. fulvâ, seminibus planis obscurè brunneis pallidè lato-alatis, flore ignoto. Ex *Langâ Peruviæ.* An discoloris vel recurvatæ varietas? vix credo.

9. C. *præcipitata;* (C. *coccinea,* Bot. Mag. 3865.) C. coccineæ affinis perianthio coccineo tubo præcipitatè curvato.

10. C. *coccinea;* (P. *coccineum,* Ruiz. *Stenomesson coccineum,* Herb. Am.) Bulbum, folia, et cætera C. præcipitato similis, tubo non præcipitato suberectè declinato.

11. C. *venusta;* (vel forsan C. coccineæ var. venusta) C. coccineæ similis limbi laciniis viridi-maculatis, foliis viridibus circ. $\frac{3}{8}$ unc. latis pedalibus vel ultra obtusis, umbellâ 3-6-florâ, per. $1\frac{1}{2}$-2 unc. vel infra, tubo non præcipitato. Ex *Morocanchâ Peruviæ.*

12. C. *recurvata;* (P. *recurvatum,* Ruiz.) "bulbo oblongo, foliis glaberrimis carinatis, scapo ancipitè 1-3-floro spathâ integrâ rubro-purpureà, tubo decurvo inferne gracili superne ampliato limbi lac. patentibus, coronâ brevi ovato-cyathiformi dentibus sex staminiferis, antheris limbum æquantibus stylo superante." Ruiz cum icone mendacissimâ; ex *Peruviæ* præruptis præcipuè circa Obragillo; foliis in icone semunciam latis pedunc. $1\frac{3}{4}$-$4\frac{1}{4}$ unc. bulbo purpurascente.

13. C. *discolor;* (Lirio-narcissus discolor Feuill. Obs. 2. 29.) bulbo biunciali, scapo bipedali ancipiti, foliis 6-7 semunciam latis lætè viridibus glabris obtusis, scapo 4-5-floro, per. rubro intùs luteo variegato, tubo unciali superne ampliato laciniis obtusis. Ex *montibus Chilensibus et La Paz Boliviæ.*

14. C. *Obragillensis;* foliis $\frac{1}{4}$ unc. latis canaliculatis lætè viridibus obtusis arcuatis basi ancipiter vaginante, scapo (in speciminibus quinque) bifloris, spathâ univalvi 2-3-unciali pedunculos subæquante vel superante, germine oblongo, per. $1\frac{1}{2}$-2-unc. vel ultra, tubo suberecto $\frac{5}{8}$-$\frac{7}{8}$-unc. inferne gracili superne $\frac{1}{2}$ unc. latè infundibuliformi coronæ dentibus bilobis brevissimis, limbo declinato, antheris luteis, stylo limbum superante, stigmate obtuso dilatato. Ex *Obragillo Peruviæ,* colore (ut videtur) luteo plùs minùs rubro punctatè suffuso. C. angusta hujus forsan est angusta varietas. Specimen est apud me cum istis ex *Obragillo* biflorum tubo (ut videtur) decurvato, et ad C. recurvatam accedens, alioqui C. Obragillensi simillimum.

15. C. *angusta;* foliis $\frac{1}{4}$ unc. latis lætè viridibus canaliculatis breviter vaginantibus, scapo 2-7-floro 10-unciali, spathà inferne integrâ purpureâ, ped. $2\frac{1}{2}$-4-unc. per. 2-$2\frac{1}{2}$-unc. tubo suberecto inferne gracili superne angustè infundibuliformi, limbo $\frac{3}{4}$-unc, coronâ $\frac{3}{8}$-unc. cylindricâ dentibus brevissimis bilobis ferè obsoletis, stylo et filamentis subæqualibus limbum vix superantibus. Var. 1. *polyantha;* scapo 5-7-floro. Var. 2. *biflora;* scapo bifloro, pedunc. longioribus. *Prope Obragillo Peruviæ;* forsan C. discoloris varietas, certè C. recurvatæ affinis, colore (ut videtur ex sicco) luteo rubro punctatè suffuso.

16. C. *lutea;* (P. *luteum,* Ruiz. M.S. Herb. Lamb. Clitanthes, Herb. in Bot. Reg. 25. misc. 141.) bulbo parvulo, foliis $\frac{1}{4}$ unc. latis, scapo bifloro $3\frac{1}{2}$ unc. ped. inæqualibus, germine latè ovali, perianth. sub-biunciali luteo, limbo $\frac{5}{8}$ unc. coronâ brevi dentibus staminiferis.

17. C. *Macleanica;* (Clitanthes, Herb. ib.) bulbo parvo stolonifero, foliis viridibus subacutis subpedalibus $\frac{1}{8}$-$\frac{3}{16}$-latis, basi cyl. vaginante, scapo unifloro sexunc. pedunc. $\frac{3}{4}$-$1\frac{1}{2}$ unc. perianth. luteo biunc. limbo $\frac{11}{16}$-unc. In loco 11,000 pedes alt. infra *Checlam* et supra *San Mateo in montibus Peruviæ.*

18. C. *humilis;* (Clitanthes, Herb. ib.) bulbo parvo stolonifero, foliis viridibus subacutis subpedalibus $\frac{1}{8}$ unc. plùs minùs latis, scapo pedunc. et spathæ parte inferiore vaginis subterraneis primùm latentibus dein liberis, germine oblongo $\frac{3}{16}$ unc. per. coccineo tubo subbiunciali inferne gracili cylind. superne ampliato, limbo $\frac{3}{4}$ unc. coronâ circ. $\frac{3}{16}$ unc. filam. $\frac{3}{16}$ unc. conniventibus stylo limbum æquante brevioribus. Ex *Palcamayo Peruviæ.*

Genus ita per C. recurvatam tubo decurvo, Obragillensem, et angustam ad Clitanthem luteam et unifloras transit, ut vix sectio Clitanthes servari posse videtur. *W.H.*

55. DENDRŌBĬŪM Scōpă.

D. *Scopa;* caule erecto clavato compresso ramoso, ramis monophyllis, folio oblongo concavo undulato obtuso, floribus in fasciculis axillaribus squamatis dispositis petiolatis, sepalis petalisque lineari-lanceolatis, labelli trilobi trilamellati laciniis lateralibus hinc serratis intermediâ elongatâ triangulari basi serratâ apice in filis intricatis dissolutâ.

A very singular but not handsome species from Manilla. It is no. 273 of Messrs. Loddiges' collection, in which it flowered a few days since. The stems are erect, about a foot high, stiff, and strong. The leaves are from five to six inches long, and two and a half broad. The flowers are small, whitish, in axillary fasciculi. Their lip is very curious, being broken up at the point into a kind of broom, consisting of long entangled curling threads.

56. TRŌLLĬŬS acaūlĭs.

T. *acaulis;* foliis digitatis, laciniis tripartitis pinnatifidis, pedunculo brevissimo unifloro, flore stellato: sepalis 9 lanceolatis subincisis, petalis lineari-cuneatis apice rotundatis.

A singular little plant, raised in the garden of the Horticultural Society from seeds from the North of India, presented by the Honourable Court of Directors of the East India Company. The flower is solitary, hardly elevated above the surface of the ground, and quite overtopped by the leaves; it has not the globose form of the other species, but expands its deep yellow sepals in a starry manner. The petals are deep orange colour. There are fifteen carpels. It is not a very attractive plant, because its flowers are hidden among the leaves; were it not for that it would be a rival to Eranthis hiemalis.

57. PEDICULARIS megalānthă. *Wallich.*

Rather a pretty herbaceous plant, with large yellow flowers, raised from Himalayan seeds sent to the Horticultural Society by the Honourable Court of Directors of the East India Company. The upper lip of the corolla is narrow, beaked, and half spirally twisted below the under lip, which is hooded, three-lobed, very deep yellow, with the side divisions rounded and emarginate, while the central division is inversely wedge-shaped. The flowers grow in long terminal spikes. The foliage, which is pinnatifid with narrow doubly dentate divisions, has a pallid hue, as if sickly; perhaps from its cultivation not being understood.

58. JASMĪNŪM subulātūm.

J. *subulatum;* foliis alternis ternatis glabris: foliolis ovalibus acutis, floribus paniculatis, sepalis subulatis, corollæ (luteæ) limbo quinquepartito: laciniis ovatis.

A Chinese shrub, for specimens of which I am indebted to the Hon. W. F. Strangways, who raised it in his garden at Abbotsbury. It is very like J. paniculatum, but has yellow flowers, and must be a pretty shrub; greenhouse no doubt.

59. ACHIMENES grandiflora.

DeCand. Prodr. vii. 536.

This is probably as fine a species as A. longiflora. A plant of it received from M. von Houtte, nurseryman at Ghent, by the Horticultural Society, has Elm-like leaves, covered with coarse hairs, ovate-oblong, serrated, larger on one side than the other, deep green above, and stained on the underside with blood-red veins. The flowers are of a rich violet purple, remarkably handsome, on a stalk as long as the petioles of the leaves. At the base they are very much saccate; the eye is white; and the tube is delicately powdered inside with purple. The whole length of the corolla is two inches; but it will probably be much larger. It appears to have received in Belgium the barbarous name of *Achimenes Ghiesbrechtianum;* we really must congratulate ourselves that the prior publication of a name by M. DeCandolle, has spared us this infliction.

60. SOLĀNŪM concāvūm.

S. *concavum;* caule scandente, foliis oblongo-linearibus obtusis concavis glabris margine levissimè repandis, paniculis cymosis multifloris, calyce quinquedentato campanulato, antheris æqualibus.

A handsome greenhouse climber, raised seven years since at Spofforth, where it is now fourteen feet high in the conservatory and loaded with blossom. It has narrow concave dark-green leaves, in form not unlike those of S. pseudocapsicum; and panicles of violet flowers. It is a native of Chili, whence it was brought by Mr. Cuming, of whose collection it is no. 263.

61. CORVISĀRTĬĂ īndĭcă.

DeCand. in Royle's Illustr. p. 251. *t.* 60. *f.* 1. (Inula Royleana, *DeCand. Prodr.* 5. 464.)

This is a coarse herbaceous plant, with large heads of yellow flowers, in all respects extremely similar to the Elecampane or Corvisartia Helenium. It is a native of Cashmere and other northern parts of India, whence seeds have been obtained by the Court of Directors of the East India Company. It was raised in the garden of the Horticultural Society. If, says DeCandolle, the fruit is four-cornered in Corvisartia indica, as well as in C. Helenium, then the genus is a good one; if otherwise, the former will be a transition to the true Inulas. It turns out that the fruit of Corvisartia indica is four-cornered, and therefore I admit the genus.

62. DENDRŌBĬŪM adūncūm. *Wallich.*

D. *aduncum ;* caulibus pendulis, foliis lineari-lanceolatis acutis integris, floribus ternis patentibus, sepalis petalisque ovatis obtusis lateralibus duplò latioribus, cornu rotundato, labello unguiculato ovato concavo apiculato columnæ arctè appresso intùs villoso disco glabro, columnâ apice bialatâ sub stigmate villosâ, antherâ glandulosâ.

A beautiful species allied to D. Pierardi, received by Messrs. Loddiges from Dr. Wallich. The flowers are almost transparent, and of the most delicate pink; they are nearly as large as in D. moschatum.

63. DENDRŌBĬŪM cucumerīnūm.

W. MacLeay in litt.

D. *cucumerinum ;* nanum, intricatum, cæspitosum, ramis brevissimis articulatis cylindraceis monophyllis, foliis oblongis teretibus seriatim tuberculatis, pedunculis brevissimis trifloris, sepalis petalisque linearibus acuminatis obtusis, labelli trilobi lobis lateralibus triangularibus intermedio ovato crispato lamellis 5 undulatis in medio, clinandrio denticulato.

Of all the queer things which this strange order produces this is one of the very oddest. Only fancy a handful of little stunted cucumbers lying in a heap, and producing a few pale dirty-yellow striped flowers in the midst, and you have this plant before the eye. But it will be better to reserve all explanation of its appearance until we figure it, which will be shortly. It was sent from New South Wales to Messrs. Loddiges by Mr. William MacLeay.

64. CAMPĀNŬLĂ Lœflīngĭī.

Brot. phytogr. lusit. no. 10.

A beautiful little Portuguese annual, raised in the garden of the Horticultural Society, forming an entangled mass of the most delicate blue bells, with a tender foliage, reminding one of the texture of the fragile ivy-leaved Bell-flower. It is to be feared that it will scarcely be hardy, coming as it does from the west of Europe. It is said indeed to inhabit the vicinity of Madrid and Mogador, in which case it may exist with us in the open air during summer: but its delicate substance will hardly resist the cold nights we so often experience, unless in very favourable seasons. It is well worth a place in a greenhouse.

65. SOBRALIA macrantha.

Lindl. in Sertum Orch. sub. t. 29. Gen. & Sp. Orch. p. 431.

A flower of the most delicate texture, of the richest crimson, and between seven and eight inches in diameter, growing on the summit of a reedy stem, will give the reader some notion of the magnificence of this rare plant, as it is now flowering in the garden of the Horticultural Society, from specimens sent from Guatemala by Mr. Hartweg. Or it may be compared, for the flowers, to a huge Cattleya. It is one of the terrestrial species, and apparently easy enough to cultivate in a cool stove; but it is at present in few collections, no one liking to divide the roots until something more shall have been heard of its habits. It is stated by Mr. Skinner that each flower-head will go on blossoming for many weeks successively, provided the faded blooms are pulled off before they decay. We have nothing like *this* in our gardens, yet; nor is there any thing finer of the race to be introduced. It is the leader of the *crême* of its order.

66. MORMŌDĒS luxātūm.

M. *luxatum;* foliis longissimis angustis subtùs glaucis racemo multifloro pluriès longioribus, sepalis ovato-lanceolatis petalisque oblongis margine subscariosis carnosis incurvis, labello hemisphærico concavo obsoletè trilobo apiculato supra columnam cucullato, polliniorum glandulâ anticè cornutâ.

When Mr. Ross, the collector to George Barker, Esq. of Birmingham, was in the neighbourhood of Valladolid, in Mexico, there was brought to him some masses of a plant reported to be of great beauty. They arrived safely in England, and one of them has at last flowered, proving to be this species; a most extraordinary plant, of large size, of a stately habit, with a very delicious fragrance, although powerful, but with no brilliant colours to render it what *we* call handsome. Its flowers are three inches in diameter, pale lemon-colour, fleshy, rather globular, but so distorted by the complete dislocation of all the parts, that it would be difficult to ascertain their real nature, if it were not for the token given by the labellum. The latter has a deep brown streak drawn down its middle, and covers over the column like a hood. The leaves of this plant are about three feet long, narrow, deep green, with a very fine glaucous bloom upon their underside. It is worthy to be associated with even Sobralia macrantha in the choicest of all collections of these plants.

67. CYMBĪDĬŪM pēndŭlūm; *var.* brevilābrĕ.

In the Register for 1840, t. *25*, was published a figure of this plant, obtained from Bengal by the Dean of Manchester. Another variety of it has lately appeared in the collection of Messrs. Loddiges, derived from Cuming's Sincapore collections; it differs materially in having a much wider and shorter lip, the middle lobe of which is almost round; otherwise it appears to be the same.

68. ODONTOGLŌSSŪM citrōsmūm.

O. *citrosmum;* pseudobulbis subrotundis compressis lævibus monophyllis, folio oblongo-ligulato obtuso racemo paulò breviore, sepalis oblongis obtusis petalisque conformibus subæqualibus, labello unguiculato reniformi basi bituberculato, columnæ alis lateralibus subtruncatis dorsaliq. rotundato-denticulatis.

This was the most remarkable novelty exhibited at the garden of the Horticultural Society in July, 1842. It is a pseudo-bulbous plant, with a close raceme of very large pale rose-coloured lemon-scented flowers, in form resembling Oncidium Lanceanum. It had been given by Mr. Barker to T. Brocklehurst, Esq. of the Fence, from whose garden it was contributed. At first sight this species would seem to be an Oncidium; but its lip has two parallel fleshy plates at the base, which forms an acute angle with the column, and the latter again has three wings, of which two are lateral and one dorsal; all which circumstances refer it to Odontoglossum, in which, in the neighbourhood of O. pulchellum, it must be placed.

69. SARCĂNTHŬS filifōrmĭs.

S. *filiformis;* foliis filiformibus, racemis 7-8-floris, sepalis petalisque reflexis, labello apice ovato fauce utrinque bidentatâ, apice calcaris didymo, columnæ facie glabrâ.

A species of no beauty, sent to Col. Feilding from India by Dr. Wallich. It has very small flowers, with chocolate-coloured sepals and petals, and a pale yellow lip tipped with pink. It is near S. teretifolius.

70. EPIDĒNDRŪM latilābrĕ.

E. (Euepidendrum) *latilabre;* caule ancipiti folioso, foliis oblongis supremis rotundatis latioribus, floribus umbellatis, labello duplò latiore quam longo obsoletè trilobo basi bicalloso, clinandrio laciniato.

A plant of little beauty, resembling Epidendrum umbellatum; from which it differs in its lacerated anther-bed, and very broad lip, which is at least twice as wide as long. It is chiefly remarkable for its extensive geographical range. The plants in our gardens are all I believe from Brazil, where it has been found by many travellers, (it is Prof. Gardner's 628). But it is also a native of Dominica, whence I have specimens from Prof. Henslow; and Hartweg found it in the woods near Samborondan in Guatemala.

71. POLYSTĂCHY̆Ă clavātă.

P. *clavata;* foliis lineari-oblongis obtusis recurvis canaliculatis, paniculâ brevi strictâ spicatâ ramis clavatis, labelli carnosi lobo medio emarginato crenato lateralibus brevibus acutis, disco farinoso basi convexo.

An inconspicuous species from Belize, introduced by Messrs. Loddiges. The flowers are pale yellow, and small. The branches of a short panicle are fleshy, club-shaped, and studded with sessile flowers.

72. NOTY̆LĬĂ pubēscēns.

N. *pubescens;* foliis oblongis subundulatis subconcavis, racemo folio longiore pendulo, labello rhomboideo basi carinato et columnâ pubescentibus, sepalis lateralibus basi tantum connatis.

A Brazilian species with dull orange-coloured, rather sweet-scented, flowers. It is readily known by its downy lip and column. Imported by Messrs. Loddiges.

73. DENDRŌBĬŪM sanguinolēntūm.

D. (Eudendrobium) *sanguinolentum;* caulibus teretibus pendulis, foliis ovato-lanceolatis, floribus gemellis, sepalis petalisque ovatis obtusiusculis patulis, labello trilobo glabro: laciniâ intermediâ retusâ nunc utrinque plicatâ; ungue concavo brevi appendice cornuformi pubescente retrorsâ aucto.

Another novelty sent from Ceylon to His Grace the Duke of Northumberland by Mr. Nightingale. It is a plant of great beauty; with pendulous stems like those of D. Pierardi, but of a delicate purple when young; the leaves too are stained underneath and at the edges with the same colour. The flowers are as large as those of D. aggregatum, of a clear fawn colour, with the tips of the segments and lip stained with a deep rich violet. There is moreover a *scarlet* spot in the middle of the lip. Of this fine plant there is a variety without the violet spots, and with somewhat larger flowers. Both kinds have recently flowered at Syon, and will soon find a place among the figures of this work.

74. ONCĪDĬŪM barbātūm.

Lindl. Gen. and Sp. Orch. p. 200.

This very pretty and long-lost species has again appeared in the Glasgow garden, where it had been sent from Pernambuco. It has a graceful panicled habit, and a curious bearded bright yellow lip, the side lobes of which are large and yellow, while the middle lobe is obsolete, fringed and spotted with crimson. It must be a very rare plant, for Professor Gardner never met with it during his long botanical journeys in Brazil; nor have I ever found it in any dried collection.

75. VANĪLLĂ Palmārūm.

Lindl. Gen. and Sp. Orch. p. 436.

V. *Palmarum;* foliis ovatis subcordatis brevi-petiolatis succulentis, floribus geminis, sepalis petalisque angustis oblongis erectis canaliculatis, labello membranaceo obovato emarginato plano basi ter elevatâ pubescente, columnâ clavatâ facie barbatâ, ovario calyculato.

This plant was first made known by Salzmann's dried specimens, gathered near Bahia. Since that time it has been discovered in Surinam by Hostman. It has now flowered, for the first time in Europe, in the collection of Messrs. Loddiges. The blossoms are pale green, of a delicate texture, and about two inches long. The lip is hairy at the base, has an elevated broad line in the middle, and one on each side where it touches the column. At the summit of the ovary is a narrow calycle, obscurely three-lobed, and of a fleshy texture. It is one of the few Orchidaceous plants which inhabit Palm Trees.

76. DENDROBIUM compressum.

D. (Dendrocoryne) *compressum;* caule obovato compresso 2 6-phyllo, foliis ovalibus acutis striatis basi dilatatis membranaceis amplexicaulibus, racemis subquadrifloris cernuis, sepalis petalisque ovatis erectis, cornu elongato obtuso, labello cuneato lævi per axin sulcato.

A curious species with yellow flowers of middle size, and singular compressed stems not more than three or four inches long. The lip is singularly truncated. Mr. Nightingale sent it from Ceylon to His Grace the Duke of Northumberland at Syon. We shall publish a figure of it as soon as we can find room.

77. DRYMONIA punctata.

D. *punctata;* foliis ovalibus longè petiolatis serratis leviter pubescentibus, floribus axillaribus subsessilibus, pedunculo pyriformi incrassato, calycis laciniâ quintâ lineari a lateralibus sejunctâ infimis lanceolatis subserratis, corollæ limbo fimbriato, filamentis basi dilatatis, antheris muticis.

This curious plant has the habit of a Sinningia with a creeping stem, and was introduced from Guatemala by Mr. Hartweg. It has light green leaves with a crimson midrib, and the petiole stained with the same colour. The flowers are of a pale cream colour, dotted and spotted with violet. The lobes of the corolla are deeply fringed, and give the plant a pretty appearance; but its want of bright colour will prevent its being a favourite with cultivators. It has blossomed in a stove in the garden of the Horticultural Society.

78. STĔLĬS argentātă.

S. *argentata ;* folio lineari-oblongo coriaceo emarginato in petiolum canaliculatum angustato caule brevi longiorem, racemo elongato multifloro, sepalis æqualibus ovatis subdiaphanis pubescentibus, petalis labelloque subæqualibus truncatis apice particulis argenteis micantibus.

A native of Guayana, where it was found by Mr. Schomburgk, who distributed it under the number 427. It has lately flowered with Messrs. Loddiges, (no. 75). The flowers are in long racemes, dull greenish purple, slightly hairy, rather large for this genus; the petals are purple, and, as well as the labellum, have their truncated extremities covered with an appearance like minute particles of silver. The plant forms large tufts, and flowers very abundantly.

79. ĔRĬĂ pānnĕă.

E. *pannea ;* (Lanatæ) ebulbis, foliis distichis pugioniformibus scapo unifloro(?) densè lanato quasi panneo longioribus, sepalis lateralibus triangularibus supremo petalisque pluriès majoribus, labello lanceolato acuminato carnoso pubescente disco farinaceo.

An Orchidaceous plant from Sincapore, imported by Messrs. Loddiges, (252). It has narrow dagger-shaped leaves of a pale yellow green, and a single greenish-yellow flower, woolly on the outside, and seated on a short scape covered with a whitish cloth-like substance. The labellum is purplish, slightly hairy, and has a broad patch of a mealy hairiness a little below its point.

80. OCTOMĔRĬĂ grandiflōră.

O. *grandiflora ;* folio longo lanceolato arcuato, vaginis caulis arctè appressis, labelli trilobi unguiculati laciniis lateralibus brevibus subfalcatis acutis intermediâ obovato-cuneatâ denticulatâ fissâ ; lamellis duabus carnosis.

This is the largest Octomeria yet seen. Its leaf is as much as eight inches long, and the stem is about the same length. The flowers are about four times as large as those of O. Baueri, and of the same pale yellow colour. Messrs. Loddiges imported it from Brazil, (60).

81. GLADIOLUS crispiflorus.

G. *crispiflorus;* cormo modico [vix ¾ unc. lato] tunicâ exteriore extus fibris parallelis superne subconfluentibus intus glabrâ, foliis ¼ unc. vel ultra latis, caule erecto circiter bipedali superne tenui, floribus subnovem vel ultra confertim alternantibus anticè spectantibus, bracteis viridibus, tubo brevi, limbo latè obtuso margine plicato cœruleo, labio imo protuso 1⅜ unc., sepalis purpureis, petalis inferioribus albis rubro notatis, summo concavo, capsulâ vix semunciali trisulco-turbinatâ, seminibus badiis angularibus dorso rotundato raphe apiculatâ. *Species pulchra ex Rossiâ meridionali Spofforthiæ m. Junio floret.* W. H.

82. GLADIOLUS Caucasicus.

G. *Caucasicus;* cormo magno ultra unc. lato, tunicâ exteriore extus fibris parallelis superne subconfluentibus, caule forti tripedali, floribus ultra 12 longè bracteatis anticè spectantibus, perianthio purpureo, labio imo protruso, petalis inferioribus subalbidis, capsulâ rugosâ ¾ unc. seminibus badiis subovalibus. *Species perpulchra ex Tifflis viciniâ, Spofforthiæ a dom. Gay missa.* W. H.

83. HERBERTIA Drummondiana.

H. *Drummondiana;* foliis ¼ unc. latis plicatis sexunc. caule 4 unc. spathâ biflorâ 1¾ unc. valvâ exteriore breviore, germine obovato semunciali, sepalis 1¼ unc. laminâ ⅞ unc. latâ pallidè violaceâ infra parum saturatiore, ungue albo maculis violaceis, petalis parvulis ungue cymbiformi saturatè violaceo laminâ acutâ recurvâ pallidiore, filamentorum columnâ infra crassiore lividâ superne pallidiore, stigmatum lobis membranâ breviter cristatâ interpositâ apice fimbriatis. *Habitat in ditione Texas.* W. H.

84. BEATONIA purpurea.

B. *purpurea;* (Bot. Mag. 3779. fol. 3. A.D. 1840. Tigridia violacea, supra 1841. Misc. 134. Link, Klotzch et Otto, t. 20.) Observ. In Tigridiâ antheræ marginibus parallelis incurvatæ, styli lobi furcati, stigmate longo spathulato revoluto marginibus superne fimbriatis, caulis foliigerus terminalis; in Beatoniâ antheræ infra latæ superne gradatim minores decurvatæ, styli lobi furcati cristâ minutâ pessuliformi intra furcam positâ stigmate minuto terminali, caulis extrafoliaceus. Si Tigridiæ sectio esset, quod vix puto, Beatonia, nomen *purpurea* priori auctoritate valeret. W. H.

85. BOMAREA Macleanica.

B. *Macleanica ;* [nisi forte B. aurantiaca var. Macleanica] caule forti villoso, foliis $4\frac{1}{2}$ unc. sesquiunc. latis acuminatis subtus densè villosis, involucri foliolis plurimis inæqualibus acuminatis sub $\frac{1}{4}$ unc. latis, umbellâ confertâ pedunculis simplicibus ebracteatis sesquiuncialibus, perianthio subæquali $1\frac{1}{4}$ unc. sepalis subovalibus [coccineis ?] petalis apice producto spathulatis [aurantiacis ?] costâ obscuriore. *Species perpulchra ex Vitoc et Maranioc in Peruviâ a d. J. Maclean lecta.* Obs. *Bomareæ maximæ caule vix volubili arbores repando scandere feruntur.* W. H.

86. BOMAREA subglobosa.

B. *subglobosa ;* [nisi forte B. fimbriatæ var. subglobosa] caule glabro, foliis glabris $4\frac{1}{2}$ unc. acuminatis subunc. latis, involucri bracteis conformibus externis biunc. internis uncialibus, umbellâ circiter 34-florâ subglobosâ, pedunculis tenuibus simplicibus ebracteatis $1\frac{3}{4}$ unc. perianthio subæquali unciali [sepalis rubris ?] petalis [viridibus ?] fortiter rubro maculatis. *Ex Vitoc et Maranioc a J. Maclean lecta.* W. H.

87. BOMAREA punctata.

B. *punctata ;* foliis subtriuncialibus $\frac{5}{8}$ unc. latis acutis, bracteis angustis acutis $\frac{3}{8}$ unc. pedunc. binis inferne furcatis bracteatis circ. $1\frac{1}{4}$ unc. perianthio $1\frac{1}{8}$ unc. luteo viridi maculato, sepalis obovatis apice subacuto, petalis rotundatè spathulatis. *Species a dom. Matthews ex Peruviâ, cum icone pictâ missa.* W. H.

88. BOMAREA uncifolia.

B. *uncifolia ;* caule glabro, foliis glabris fortiter nervosis $2\frac{1}{4}$ unc. $\frac{5}{16}$ unc. latis apice subobtusè uncato, involucri bracteis septem conformibus, pedunc. sex $1\frac{1}{4}$ unc. bracteâ prope basim undulatâ, perianthio $\frac{7}{8}$ unc. sepalis obovatis ultra $\frac{3}{4}$ unc. $\frac{3}{8}$ latis, petalis spathulatis. *Spec. herb. Hooker. ex monte* [*Pillghum? Pillghuca?*] 12000 *pedes alt. in Peruviâ? vel in Boliviâ?* W. H.

89. BOMAREA Turneriana.

B. *Turneriana ;* foliis glabris lanceolatis acuminatis $2\frac{3}{4}$ vel infra unc. $\frac{3}{8}$ latis, umbellâ confertâ bracteis conformibus, pedunc. simplicibus ebracteatis uncialibus, perianthio [lutescente ?] æquali sesquiunciali sepalis truncatè subspathulatis $\frac{5}{16}$ unc. latis petalis spathulatis $\frac{3}{8}$ unc. latis punctatis. *Species ex S. Fe de Bogota, Turner herb. Hooker.* W. H.

90. BOMAREA variabilis.

B. *variabilis ;* foliis acutis subtus pilosis umbellâ 2-20-florâ pedunc. bracteâ parvâ simplicibus vel furcatis rariùs in cultis trifloris, perianthio sub-vel

ultraunciali [$\frac{7}{8}$ vel $1\frac{1}{8}$], sepalis purpureis oblongis apice viridi sæpius tomentosis, petalis longioribus spathulatis viridibus punctatis, germine pubescente vel pube obsolescente vel obsoletâ. Var. 1. Simplex. B. simplex, *Herb. Amar.* pedunculis simplicibus. Var. 2. Pubescens; perianthio $\frac{7}{8}$ unc. sepalis confertim tomentosis, ped. 1-2-floris. Var. 3. Subpubescens; perianthio $1\frac{1}{8}$ unc. sepalorum et germinis pube rarâ, pedunc. 1-3-floris. Var. 4. Subglabra; sepalorum et germinis pube fere vel omnino obsoletâ, perianthio $1\frac{1}{8}$ unc. ped. 1-3-floris. Var. 5. Albescens; (apud me, puto, fortuita ex var. subglabrâ) caule et foliis pallidioribus et germine glabro, sepalis albis glabris apice viridi, petalis costâ lutescente viridibus non punctatis. Species Peruviana et Boliviana in Andibus passim; in cultis eâdem plantâ vel umbellâ quandoque involucri bracteæ minutæ vel foliiformes et sesquiunciam latæ, pedunculi simplices vel furcati, rariùs triflori. Cœli nostri patiens foliis, hieme superinjectis, æstate totâ et autumno caulibus successivis floret. W. H.

91. BOMAREA acutifolia.

B. *acutifolia;* Var. 3. Coccinea, perianthio coccineo, petalis luteo marginatis intus punctatis. *Ex ditione Mexicanâ.* W. H.

PLEUROTHALLIS.

This genus is one of those large assemblages of species, which has been so much increased by modern discoveries as no longer to resemble what it was only ten years ago. Of the numerous kinds defined since the publication of the Genera and Species of Orchidaceous Plants in 1830, the greater part have been made known in a desultory manner, so that a Botanist finds it difficult to compare them with each other. They have moreover been insufficiently classified, in consequence of which the difficulty of their determination has been much increased. It therefore seems to me that a complete recapitulation of all that are known up to the present time cannot be otherwise than useful; the more especially as their smallness, and the minuteness of the characters by which they are known, are sufficiently embarrassing even when the exposition of the species is as clear and well arranged as art can make it. Let me be permitted, however, before going into an enumeration of the species of this genus, to offer a few general observations on the genera allied to it.

Among Malaxeous Orchidaceæ, Pleurothallis undoubtedly forms the type of a very natural group; which, however, in the Genera and Species of Orchidaceous Plants is not sufficiently circumscribed. The genera properly belonging to PLEUROTHALLIDÆ are, *Pleurothallis, Stelis, Lepanthes, Octomeria, Stenoglossum, Restrepia, Physosiphon,* and *Masdevallia ;* to which must be added *Myoxanthus* and *Specklinia,* if those two genera can be retained. But the former I have formerly reduced to Pleurothallis, and a more extensive knowledge of the species has led me to adopt the same conclusion respecting Specklinia, which is only characterized by an extension of the base of the lateral sepals, in which particular there are so many insensible gradations that it cannot be practically employed ; all the species of Pleurothallis are more or less gibbous at the base of the lateral sepals.

Among these genera Pleurothallis is by far the most extensive, comprising species with considerable difference in habit, and in the subordinate details of their fructification. As the latter do not appear to be in any way connected with the former, it seems desirable to employ for natural purposes the habit alone, which furnishes some well marked distinctions. Some of the species have long spikes of flowers, considerably extending beyond the foliage ; these form one section. Others have the spikes visibly shorter than the foliage, and form a second section. A third consists of those whose flowers are arranged in a fascicle at the base of the leaf, and not in spikes. Finally, a fourth section consists of small species with solitary or nearly solitary flowers growing on long capillary peduncles.

Taking this mode of distribution, the species may be conveniently arranged as follows.

Section I. ELONGATÆ. Spicæ v. racemi foliis evidenter longiores, v. omninò æquales.

* *Racemosæ ;* nempè pedicellis quam bracteæ evidenter longioribus.

† Disepalæ (nempè sepalis lateralibus ferè ad apicem connatis) ; labello indiviso.

1. P. *Matthewsii* (Lindl. in Comp. Bot. Mag. v. 2. *Acronia phalangifera,* Presl. Symb. t. 57.) ; folio oblongo acuminato basi rotundato racemis breviore caule longiore, sepalis petalisque æquilongis setaceo-acuminatis, labello transverso obtusissimo medio carnoso cordato margine dilatato membranaceo.——*Peru.*

2. P. *Restrepioides ;* folio oblongo coriaceo subsessili spicis subgeminis strictis duplò breviore, floribus ringentibus disepalis glabris longè pedunculatis, sepalis ovatis acuminatis inferiore cymbiformi bidentato, petalis confor-

mibus duplò minoribus, labello apice lineari carnoso obtuso basi oblongo canaliculato sessili.——*Peru.*——A very fine species, found in the province of Chachapoyas by Matthews. The flowers are three-quarters of an inch long, and, apparently, purple and green. The length of the leaves from three to five inches, their breadth one to one and a half. This requires to be compared with Dendrobium acuminatum of H. B. K., the No. 13. of this enumeration.

3. P. *hians* (Lindl. in Bot. Reg. sub. t. 1797.); caule brevi, folio oblongo basi angustato obtuso racemo flexuoso 6-9-floro duplò breviore, bracteis minutis ochreatis, pedicellis arcuatis elongatis, floribus bilabiatis : labio postico 2-dentato antico oblongo obtuso, petalis cuneatis, labello ovato-lanceolato acuminato pubescente basi concavo, columnâ clavatâ clinandrio ciliato.——*Brazil.*——A fine species from the Organ Mountains. The leaf is three inches long, the scape nine to twelve. The ovary and pedicel together are about half an inch, and the sepals nearly the same length. The flowers are purple and green.

4. P. *oblongifolia* (Lindl. in Comp. Bot. Mag. v. 2.) ; folio oblongo obtuso carnoso racemo erecto laxo duplò breviore, sepalis acuminatis lateralibus connatis, petalis truncatis triveniis, labello angusto glabro apice carnoso contractiore.——*Jamaica.*——Resembles P. racemiflora. Flowers red. Fruit narrow, obovate, six-ribbed, very smooth. Bracts cucullate, acute.

5. P. *macrorhiza* (Lindl. in Hooker's Bot. Miscell.); foliis lineari-oblongis acutis carnosis basi valdè angustatis cum petiolo articulatis, pedunculo 2-3-floro erecto capillari foliis subæquali v. longiore basi cum petiolo laxè vaginato, sepalis ovato-oblongis: lateralibus ferè ad apicem connatis, petalis cuneatis, labello ovato obtuso basi cucullato petalis duplò longiore.——*Peru.*——Flores verosimiliter flavi, pro genere magni.

6. P. *fusca* (Lindl. in Comp. to Bot. Mag. v. 2.) ; folio obovato-lanceolato caule longiore, racemo solitario laxo paucifloro folio longiore, sepalis 2 oblongis acutis inæqualibus, labello obovato lanceolato acuto plano, clinandrio subcucullato denticulato.——*Brazil.*——Flores fusco-purpurei intus lutei maculati.

7. P. *flexuosa* (*Specklinia flexuosa*, Pöppig, t. 90) ; caule brevissimo monophyllo, folio latè lanceolato acuto, racemo capillari erecto tandem flexuoso, sepalis intùs villosis infimis ultra medium connatis, petalis semilunatis, labello oblongo supernè angulato, columnâ apice dentatâ. ——*Peru.*——On trees.

8. P. *picta* (Lindl. in Bot. Reg. sub f. 1797.); folio spathulato marginato retuso racemis laxis duplò breviore, bracteis minimis, sepalis acuminatis lateralibus apice tantùm sejunctis, petalis lineari-lanceolatis acutis, labello lineari obtuso carnoso supra 1-sulcato.——*Demerara.*

9. P. *Grobyi* (Lindl. in Bot. Reg. t. 1797.) ; folio obovato emarginato caule triplo longiore recemo laxo erecto multoties breviore, bracteis minimis membranaceis, sepalis costatis oblongis acutis lateralibus apice tantùm sejunctis, petalis lanceolatis acutis, labello lineari obtuso carnoso supernè unisulcato.——*Brazil.*——In some specimens the raceme is less zigzag, and the flowers smaller than in others.

†† Disepalæ ; labello trilobo v. repando.

10. P. *pachyglossa* (Lindl. in Bot. Reg. 1840. misc. 146.) ; folio ovato-lanceolato apice tridentato caule suo longiore scapo breviore, scapo filiformi erecto distanter 4-floro, sepalis lineari-lanceolatis acuminatis membrana-

ceis inferiore bicarinato bidentato, petalis carnosis obovatis convexis trinerviis apice rotundatis dorso sub apice verrucosis, labello petalis duplò longiore unguiculato crassissimo obtuso linguiformi basi auriculis duabus membranaceis aucto medio villoso dorso verrucoso.——*Mexico.*——This is a large-flowered species. It has purple semitransparent sepals six lines long, and about four flowers on a slender scape, divided from each other by intervals of nearly an inch.

11. P. *pandurifera*; cæspitosa, folio oblongo marginato basi angustato apice tridentato caulis longitudine, pedunculo setaceo folio triplò longiore apice flexuoso 5-6-floro, sepalis diaphanis ovatis infimo bidentato, petalis nanis obovatis obtusissimis, labello pandurato lobo intermedio angustiore rotundato, clinandrio latè marginato membranaceo.——*Brazil.*——An inhabitant of the Organ Mountains, where it was found by Mr. Miers. It looks like a small starved specimen of P. Grobyi.

12. P. *quadrifida* (*Dendrobium quadrifidum*, La Llav. 2. 40); caule elongato, folio cuneato-oblongo carnoso lucido vaginante, racemis fasciculatis longissimis erectis, bracteis acutis vaginantibus, perianthio 4-partito: sepalis apice reflexis, petalis sublinearibus erectis acutis, labello 3-lobo carinato cum columnâ elasticè articulato.——*Mexico.*——Flores lutescentes molles odorem citrinum vespere spirantes.

††† Trisepalæ (nempè sepalis lateralibus ultra medium liberis.)

13. P. *acuminata* (*Dendrobium acuminatum*, H. B. K. 1. 357.); "caule monophyllo; folio oblongo acuto; spicis subgeminis; foliolis calycinis exterioribus lanceolato-linearibus acuminatis." —— *Peru.* —— Caulis, adjectâ spicâ, sesquipedalis, vaginatus. Vaginæ acutæ, apice laxiusculæ, subpollicares. Folium basi angustatum, coriaceum, bipollicare, 8-9-lineas latum. Spicæ terminales, 4-6-pollicares, strictæ, basi spathis brevibus involutæ. Flores pedicellati, bracteolis subtruncatis. Flores vix patuli. Sepalum supremum concavum; lateralia plana, basi cum ungue labelli connata, semipollicaria. Petala triplò quadruplòve breviora. Labellum lanceolato-oblongum, obtusum, basi unguiculatum, subcanaliculatum, plicis tribus longitudinalibus instructum. Ex *Kunth.*

14. P. *elegans* (*Dendrobium elegans*, H. B K. 1. 358.); "caule monophyllo, folio oblongo obtuso, spicis quaternis vel quinis, foliolis calycinis exterioribus oblongis obtusiusculis."——*New Granada.*——Caulis 8-9-poll. Vaginæ submarcidæ, subbipollicares. Folium 5-6-poll. sesquipoll. latum. Spicæ erectæ, 6-7-poll. basi bracteâ ovato-oblongâ membranaceâ glabrâ sesquipollicari fuscescenti cinctæ. Flores subsecundi cernui. Sepala diaphana, alba, nervis punctisq. violaceis picta: lateralia trinervia, basi ungui labelli adnata, 3 lineas longa; supremum latius 5-nervium. Petala duplò breviora, rotundata. Labellum unguiculatum, sepalis duplò brevius, basi sepalis lateralibus connatum; lamina libera, cum ungue articulata, ovato-elliptica, obtusa, carinata, trinervia, violaceo-punctata. Pollinia 2, pedicellata. Ex *Kunth.*

15. P. *marginata* (Lindl. in Bot. Reg. 1838. misc. 70.); folio obovato biconvexo marginulato caule pluriès longiore racemo laxo erecto multò breviore apice obsoletissimè tridentato, sepalis subfalcatis carinatis lateralibus semiconnatis, petalis linearibus obtusis apice callosis, labello lineari obtuso canaliculato.——*Guatemala.*——A very small species with the

habit of P. Grobyi, and of no beauty. It grows in dense tufts on the branches of trees.

16. P. *scariosa* (*Dendrobium scariosum,* Llave 2. 39.); caule brevissimo folio elliptico carnoso suprà hyalino margine scarioso, pedunculis 3-4 filiformibus flexuosis secundifloris, sepalis concavis, petalis planis, labello tripartito.——*Mexico.*——Planta exigua. Folia enervia. Spatha membranacea brevissima in sinu folii. Sepala luteo-virescentia. Petala nivea, lineâ longitudinali limboque purpurascente variegata, ex *La Llave.*
17. P. *aristata* (Lindl. in ann. nat. hist. 4. 116. 2. 329. t. 15.); cæspitosa, folio ovali acuto apiculato basi angustato caule longiore, racemo capillari flexuoso erecto 4-6-floro folio ter longiore, bracteis vaginantibus cuspidatis, pedicellis elongatis, sepalis aristatis subciliatis lateralibus semiconnatis, petalis lanceolatis acuminatis semipinnatifidis duplò brevioribus, labello lineari glanduloso-hispido apice rotundato basi glabro utrinque auriculato.——*Demerara.*——Flowers purple, apparently streaked with yellow.
18. P. *laxa* (L. 13.); "caule monophyllo, folio oblongo acuminato, racemis laxis, capsulis nudis."——*Jamaica.*——P. alpestri valdè affinis; utraque bracteis cucullatis distincta. Racemi foliis subæquales. Flores secundi, atropurpurei, lineati. Bracteæ cucullatæ. Sepala lateralia semiconnata. Labellum ovatum, canaliculatum, apice reflexum, cœrulescens.
19. P. *alpestris* (L. 14.); "caule monophyllo, folio ovato-lanceolato, racemis laxis, carinis capsularum muricatis."——*Jamaica.*——Racemi folio sæpè longiores. Flores parvi, secundi, luteo-virides. Sepala lateralia semiconnata. Labellum ovatum, obtusum, concavum, minutum, atropurpureum.

** *Spicatæ;* nempè pedicellis quam bracteæ brevioribus v. vix longioribus.

† Disepalæ.

20. P. *racemiflora* (L. no. 8. Ex. Fl. t. 123.); folio oblongo emarginato racemo secundo multifloro duplo breviore, bracteis vaginatis appressis, sepalis ovato-lanceolatis: lateralibus connatis petalis ovatis subæqualibus, labello subunguiculato linguæformi obtuso plano, clinandrio dentato. ——*Jamaica.*
21. P. *glumacea* (Lindl. in Comp. to Bot. Mag. 2.); folio lanceolato petiolo longiore, spicâ nutante multiflorâ foliis 3-plò longiore, sepalis linearibus acuminatis subæqualibus inferiore bicarinato, petalis oblongis, labello ovato concavo obtuso.——*Brazil.*——Flowers yellowish. The narrow sharp pointed sepals have something the appearance of the glume of a grass.
22. P. *lanceolata* (L. no. 5.); caule ascendente tereti folio ovato-lanceolato erecto basi angustato ferè triplo longiore, racemo solitario folio longiore apice nutante e spathâ maximâ coriaceâ dimidiam folii ferè æquante. ——*Peru.*——Taking the stem and spike together this plant is a foot and half high, while the leaf is about seven inches long. The synonyms of Humboldtia and Stelis lanceolata, quoted in the Gen. and Sp. belong to Stelis disticha of Pöppig, according to a specimen in Willdenow's herbarium.
23. P. *cauliflora* (Hook. ic. pl. t. 50.); folio subrotundo-ovato petiolato racemis secundis fasciculatis duplò breviore, spathâ oblongâ obtusâ vagi-

natâ, sepalo inferiore oblongo emarginato superiore ovato obtuso multò minore, petalis linearibus, labello subrotundo membranaceo concavo retuso cum ungue producto columnæ articulato.——*Peru.*

24. P. *truncata* (Hook. ic. t. 55.); folio ovato-lanceolato acuminato racemis geminis æquali, caule pluries longiore, sepalis lateralibus in unum ovatum connatis superiore cucullato duplò minoribus, petalis lineari-oblongis, labello truncato involuto. —— *Peru.*——Flowers orange-colour.

25. P. *diffusa* (Pöppig & Endl. Gen. & Sp. t. 86.); caule anguloso folium ovato-oblongum acutum erectum excedente, racemis compluribus longissimis diffusis, spathâ compressâ acuminatâ brevi, floribus secundis, sepalis latè ovatis inferioribus ad apicem connatis, labello unguiculato emarginato cucullato.——*Peru.*

26. P. *longicaulis*; folio coriaceo angustè oblongo obtuso caule apice alato basi tereti quadruplò breviore, spicis numerosis multifloris cernuis folio longioribus, sepalis acutis lateralibus apice liberis basi parùm productis, petalis lanceolatis sepalis duplò brevioribus, labello bilamellato oblongo acuto basi angustato acutè trilobo.——*Brazil.*——A remarkable species with very long stems, found by Mr. Miers. The flowers appear to be yellowish. It is much like Pl. rubens, but differs in the form of the petals and lip.

27. P. *plumosa*; folio coriaceo ovali basi haud angustato spicâ paulò breviore, floribus pubescentibus, sepalo dorsali lineari sub apice intùs convexo lateralibus connatis obtusis, petalis nanis argutè inciso-serratis, labello concavo rhombeo-ovato serrulato levitèr papilloso, clinandrio serrato. ——*Trinidad.* (Loddiges no. 13.)——Flowers green, with a little purple dotting on the inside. The petals have such long delicate fringes as to look like small feathers.

28. P. *spiralis* (L. no. 10. *Stelis connata*, Presl. Reliq. Hænk. 1. 103.); caule tereti laxè vaginato folio oblongo æquali, racemo erecto spirali folio longiore, bracteis acuminatis, sepalis ovatis obtusiusculis: lateralibus in unum cymbiforme connatis, petalis columna labelloque truncatis nanis. ——*Peru.*——This very curious species, like P. hians, has the habit and petals of Stelis.

29. P. *tricarinata* (Pöppig and Endl. Gen. and Sp. t. 87.); caule compresso folium lineare oblongum obtusatum adæquante, spicâ solitariâ pedunculatâ folium superante, floribus distichis resupinatis, sepalis ultra basin connatis lineari-lanceolatis lateralibus ad apicem concretis margine revolutis tricarinatis, labello unguiculato oblongo.——*Peru.*

†† Trisepalæ.

30. P. *stenopetala* (Lindl. in Bot. Reg. 1838.); folio oblongo apice rotundato basi in petiolum planum angustato racemo multò breviore caule longiore, bracteis membranaceis cucullatis, sepalis acuminatissimis linearibus intus pubescentibus omnibus ferè liberis, petalis nanis obtusis dorso carinatis labelloque oblongo conduplicato glabris.——*Brazil.*——A pretty species with long slender cream-coloured flowers.

31. P. *sclerophylla* (Lindl. in Bot. Reg. sub t. 1797.); folio oblongo petiolato obtuso carnoso racemis multò breviore, bracteis ovatis cucullatis, sepalis acuminatissimis omnibus ferè liberis, petalis nanis obtusis, labello oblongo conduplicato apice piloso-glanduloso. —— *Brazil.*

32. P. *arbuscula*; caule erecto ramoso folioso vaginis striatis vestito, foliis ovalibus mucronatis in petiolum brevem angustatis, spicis solitariis se-

cundis foliis duplò longioribus, sepalis linearibus elongatis obtusis, petalis nanis rotundatis, labello lineari obtuso intùs bicarinato.——*Peru.* ——Found near Loxa by Mr. Hartweg. The stems are erect, slightly branched, and covered with firm striated sheaths, from among which appear the leaves, which are about 1½ inch long. The sepals are about half an inch long.

33. P. *gelida* (Lindl. in Bot. Reg. 1841. misc. 186.); folio oblongo carnoso concavo basi attenuato caule tereti laxè 1-ochreato æquali v. longiore, spicis geminis erectis secundis folio subæqualibus e spathâ brevi univalvi exsertis, floribus cylindraceis, sepalis carnosis intus pilosis lateralibus semiconnatis, petalis minimis glabris subrotundo-oblongis apice denticulatis, labello etiam breviore lineari cuneato bilamellato apice rotundato plano, columnâ petalis breviore.——*Jamaica.*——A plant with all the habit of Pl. racemiflora, but the spikes appear in pairs, and are hardly so long as the leaf, and the structure of the flowers is different. The whole plant is fully a foot high.

34. P. *rubens* (Lindl. in Bot. Reg. sub t. 1797.); folio oblongo-lanceolato obtuso, racemis longissimis, bracteis oblongis ochreatis, sepalis lanceolatis acuminatis lateralibus basi tantùm connatis petalis obtusis, labello obovato repando obtuso lineis 2 elevatis flexuoso carnosis.——*Brazil.*—— This plant seems to vary a good deal in size, some specimens not being more than six inches high, others more than a foot. The flowers are apparently pale green.

35. P. *Jamiesoni* (Lindl. in Bot. Reg. sub t. 1797.); folio lineari-oblongo carnoso submucronato racemo secundo stricto duplò breviore, bracteis densis brevibus ochreatis cucullatis, sepalis oblongis subæqualibus leviter carinatis lateralibus basi tantum connatis, petalis duplo brevioribus apice rotundatis, labello breviore membranaceo rhombeo-trilobo plicâ unguis transversâ.——*Peru.*

36. P. *pulchella* (L. no. 12. H. B. K. t. 90.); spicis geminis folio oblongo-lanceolato obtuso coriaceo duplo longioribus, floribus nutantibus, sepalis oblongis apice angustatis triveniis : superiore duplo latiore.——*Peru.*

37. P. *saurocephala* (Lodd. Bot. Cab. t. 1571. Bot. Mag. t. 3030. Bot. Reg. t. 1968.) ; folio coriaceo oblongo cauli vaginato subæquali racemis breviore, bracteis ovatis ovario brevioribus, sepalis coriaceis oblongis pubescentibus lateralibus semi-connatis, petalis nanis acutis, labello oblongo medio excavato utrinque bilamellâto : lamellis marginantibus incurvis. ——*Brazil.*

38. P. *Lanceana* (Lodd. Bot. Cab. t. 1767.); foliis carnosis ovalibus acutis, spicis solitariis pendulis strictis foliis longioribus, sepalis conniventibus acutis lateralibus ad apicem usque connatis, petalis subulatis ciliatis, labello ovato emarginato unguiculato.——*Surinam.*——Flowers yellow, crimson at the base inside.

39. P. *capillaris* (Lindl. in Bot. Reg. sub t. 1797.); folio lineari-lanceolato racemis capillaribus fasciculatis subæquali, sepalis acuminatis lateralibus basi connatis, petalis ferè æquilongis serratis acuminatis, labello lanceolato basi angustato acuto membranaceo 3-venio.——*Brazil.*

40. P. *floribunda* (*Specklinia floribunda*, L. no. 4.); caule ancipiti folio oblongo-lanceolato duplò longiore, spicis flexuosis multifloris folio æqualibus et longioribus, sepalis ovatis lateralibus basi tantum connatis, petalis duplò brevioribus serrulatis, labello trilobo bilamellato : laciniis acutis lateralibus nanis, clinandrio dentato.——*Martinique.*——A small plant

with drooping zigzag spikes. The P. floribunda of Pöppig is the same as P. macrophylla, no. 44.

41. P. *caulescens* (Lindl. in Hooker's Bot. Misc. 2.); caulibus ascendentibus foliosis gracillimis, foliis membranaceis patentibus vaginantibus lineari-lanceolatis vix costatis, racemis 2-3 terminalibus erectis subsecundis caulium longitudine, bracteis ochreatis ovatis acutis, sepalis lanceolatis: lateralibus subconnatis, petalis ovatis acutis duplò brevioribus, labello postico unguiculato ovato obtuso obsoletè trilobo complicato.——*Peru.* ——This is another of the species which bear many leaves on a stem instead of one; they do not however appear to possess any other character in common.

42. P. *teres* (Lindl. in Bot. Reg. sub t. 1797.); folio tereti racemo gracili breviore, bracteis membranaceis ochreatis, floribus pendulis, sepalis acuminatis lateralibus apice tantum liberis, petalis minimis oblongis acutis, labello lineari canaliculato acuto marginibus incrassatis, columnâ basi pubescente.——*Brazil.*——Flowers cinnamon-coloured. The leaves are very like those of Leptotes bicolor.

43. P. *rupestris* (Lindl. in Bot. Reg. sub t. 1797.); folio tereti mucronato anticè sulcato racemo stricto rigido paulò breviore, bracteis parvis rigidis concavis, sepalis acutis lateralibus semiconnatis, petalis lanceolatis ciliatis, labello subtrilobo membranaceo obtuso appendice magno carnoso bifurco: cruribus parallelis porrectis acutis.——*Brazil.*——Scapus rubenti-virens. Sepala purpurascentia. Petala purpurea.

Section 2. Effusæ. Spicæ v. racemi folio multò breviores.

* *Læves*; nempè, floribus omnino pube orbatis.

44. P. *macrophylla* (L. no. 11. P. *floribunda*, Pöpp. & Endl. t. 84.); caule semitereti folium oblongo-lanceolatum petiolatum coriaceum erectum duplò excedente, racemis fasciculatis numerosissimis patulis folio triplò brevioribus spathâ saccatâ basi inclusis, sepalis ovato-oblongis inferioribus ad basin liberis, labello subrotundo basi apiceque acuminato.——*Peru.*——A specimen in the herbarium of Willdenow identifies Pöppig's P. floribunda and the macrophylla of Humboldt and Kunth.

45. P. *decurrens* (Pöppig & Endl. t. 83.); caule anguloso folium subrotundum utrinque acutum ad medium cordatum lobis adnatis decurrens triplò excedente, spicis in sinu medii folii paucis abbreviatis oliganthis, sepalis æquilongis inferiore ex duobus ad apicem connatis consistente latiore bimucronato.——*Peru.*——A large species looking like P. Mathewsii.

46. P. *secunda* (Pöppig & Endl. t. 85.); caule tereti folium oblongum acuminatum basi acutum triplò excedente, racemis folio brevioribus capillaribus paucifloris, floribus erectis secundis, sepalis latè ovatis inferioribus ad apicem connatis, labello cordato subrotundo longe unguiculato.——*Peru.*

47. P. *prolifera* (L. no. 7.); caulibus ancipitibus, folio oblongo cochleato carnoso prolifero racemo duplo longiore, bracteis cuneatis cuspidatis cucullatis pedicello brevioribus, sepalis conniventibus: lateralibus semiconnatis, petalis labelloque conformibus duplo longioribus, clinandrio dentato.——*Brazil.*

48. P. *luteola* (Lindl. in Bot. Reg. 1841. misc. no. 2.); folio ovato canaliculato acuto tridentato petiolo suo breviore, pedunculo trifloro folio adpresso eoque breviore, floribus glabris, sepalis lateralibus connatis omnibus carinatis, petalis spathulatis emarginatis, labello lineari obtuso canaliculato glabro.——*Brazil?*——The small yellow flowers exhale the smell of a sliced cucumber in the middle of the day.

49. P. *bicarinata* (Lindl. in Bot. Reg. 1839. misc. 11.); folio oblongo coriaceo planiusculo leviter carinato basi subcordato petiolo acutè canaliculato univaginato breviore, sepalis linearibus æqualibus lateralibus carinatis ad apicem ferè connatis, sepalis lineari-obovatis minutè serratis glabris, labello obovato carnoso medio exarato denticulo inflexo utrinque prope basin.——*Brazil.*——Flowers dull greenish-yellow. The leaf is five inches long, the stem six, with a large withered sheath in the middle.

50. P. *ochreata* (Lindl. in Bot. Reg. sub t. 1797.); folio crasso lanceolato complicato mucrone acuto racemo denso flexuoso nutante duplò longiore, bracteis cucullatis imbricatis acutis, sepalis carinatis acuminatis lateralibus semiconnatis, petalis lineari-oblongis nanis mucronatis, labello . . . ——*Brazil.*——Calyx red or vermilion colour. Petals only half the size, yellow.

51. P. *obovata* (*Specklinia obovata*, Lindl. in Bot. Reg. 1839, misc. 137.); folio coriaceo obovato emarginato basi angustato canaliculato caule longiore, spicis brevibus fasciculatis, floribus glaberrimis, sepalis petalisque linearibus acuminatis, labello lineari abruptè acuto medio paululùm constricto, columnâ cucullatâ alatâ subdentatâ.——*Brazil.*——The leaves are obovate and very thick; the flowers are small, pale yellow, scentless, and in numerous fascicled short spikes.

52. P. *hypnicola;* folio obovato lanceolato basi angustato apice 3-dentato caule longiore, racemo capillari folio breviore paucifloro, pedicellis elongatis, sepalis obtusis lateralibus liberis, petalis obovatis rhombeis nanis, labello ovato acuminato unguiculato. —*Brazil.*——Resembles P. fusca. Mr. Miers found it in Brazil among Hypna. The height of the largest plants is four inches.

53. P. *auriculata;* folio oblongo lanceolato in caulem paulo longiorem decurrente, spicâ cernuâ 4-5-florâ folio multò breviore, sepalis lævibus ovatis acutis concavis lateralibus semiconnatis, petalis brevioribus oblongis obtusis, labelli tripartiti lobo medio ovato lateralibus angustissimis falcatis acuminatis apice glandulosis.——*Brazil.*——Flowers dull brown. Petals white. Lip brown, with a very dark globular gland at the point of each lateral lobe. I only know this from the drawings of M. Descourtilz.

54. P. *barbata* (Westcott in Phytologist, 1. 54.); "foliis lanceolatis ovatis apiculatis, sepalis subæqualibus patentibus lateralibus reflexis basi connatis supremo subreflexo, petalis sepalis multò minoribus subciliatis acutis, labello integerrimo linguæformi medio incurvo apice acuto carnoso recurvo suprà glabro subtùs barbato."——*Para.*——Plant about three inches high. Leaves fleshy, keeled. Flowers minute, varying in number from two to many. Sepals ovate-lanceolate, rather obtuse, the lateral ones combined half-way up; colour purple, except at the base, and, if examined with a glass of moderate magnifying power, papillose. Petals much smaller than the sepals, rather ciliate, acute, or acuminate. Labellum entire and strongly bearded beneath, incurved in the middle; apex fleshy, acuminate, reflexed, and in colour similar to the sepals and petals. Clinandrium slightly laciniate.

55. P. *pruinosa;* folio lineari-lanceolato obtuso canaliculato arcuato caule

breviore, racemis laxis capillaribus paucifloris folio subæqualibus et brevioribus, sepalis ovatis concavis extùs pruinosis inferiore obtuso emarginato, petalis linearibus æquilongis, labello nano rhombeo-ovato acuto lævi. ——*Surinam.*——Found by Dr. Splitgerber growing on the branches of the Crescentia, a favourite haunt of Orchidaceæ in that colony. The flowers are very small and yellowish.

** *Pubescentes;* nempè floribus, aut saltèm ovario, pubescentibus.

56. P. *strupifolia* (Lindl. in Bot. Reg. 1839, misc. no. 3.); folio longissimo coriaceo obtuso lorato plano, racemis brevibus fasciculatis pendulis, floribus hiantibus pubescentibus, sepalo intermedio oblongo apice carnoso revoluto lateralibus semiconnatis majoribus porrectis intùs maculis pilosis (!) notatis, petalis rhombeo-linearibus acutis, labello oblongo obtuso concavo nudo,——*Brazil.*——Leaves like leather thongs, full 18 inches long. Flowers dull purple and white.

57. P. *bicolor* (P. *picta*, Hooker Bot. Mag. t. 3897. nec Lindl.); folio oblongo coriaceo caule vaginato racemoque longiore, spathâ diphyllâ, racemo plurifloro, sepalis reflexis inferiore trilineato extus basi villoso duobus superioribus ultra medium unitis maculatis, petalis columnâ longioribus ovato-lanceolatis, labello ovato carnoso velutino maculato obtuso intus basi profundè canaliculato, clinandrio dentato, anthera ovarioque pubescenti-tomentosis.——*Mexico.*——Flowers purple, arranged in a spike about one-third the length of the leaf.

58. P. *pectinata* (Lindl. in Bot. Reg. 1839, misc. 1.); folio oblongo acuto cochleato glauco caule ancipiti breviore, spicâ simplici distichâ in folium pronâ eoque breviore, bracteis membranaceis cucullatis ovarii longitudine, sepalis pubescentibus elongatis intermedio lineari lateralibus latioribus basi ventricosis approximatis omninò liberis, petalis lineari-lanceolatis, labello unguiculato oblongo basi pectinato apice truncato denticulato.——*Brazil.*——Flowers sea-green, with a few deep purple spots at the base of the lip. The leaf is so firm, and so much hollowed out that it is capable of holding water, as if it were made of metal.

59. P. *pubescens* (Lindl. in Comp. to Bot. Mag. 2.); folio lanceolato coriaceo canaliculato racemis brevibus nutantibus fasciculatis duplò longiore, calycis pubescentis sepalo supremo lanceolato lateralibus apice tantùm liberis æquali, petalis lanceolatis serratis, labello oblongo membranaceo glabro acutiusculo lobis lateralibus brevibus rotundatis inflexis, clinandrio serrulato.——*Mexico.*——Flowers dull purple, and downy externally; striped with bright purple, and smooth in the inside.

60. P. *inæqualis;* folio oblongo obtuso cauli tereti pluriès breviore, spicâ densâ folio breviore, ovario pubescente, sepalis liberis lateralibus ovatis dorsali oblongo duplò majore, petalis nanis semilanceolatis, labello oblongo trilineato apice rotundato fimbriato.——*Brazil.*——The fringed obtuse lip, half lanceolate petals, and very unequal sepals are the characteristic marks of this species which was discovered by Mr. Miers.

61. P. *casapensis;* folio cordato-oblongo in caulem vix duplò longiorem decurrente, spicâ folio duplò breviore, bracteis cucullatis cuspidatis ovario pubescente longioribus, sepalis carnosis acutis lateralibus ad apicem ferè connatis glabris, petalis lanceolatis serratis diaphanis, labello carnoso obovato acuto concavo margine elevato leviter serrulato.——*Peru,* near Casapi, Mathews (1830).——Leaves 2½ inches, stem 3½ inches long.

Flowers yellow, quite smooth, except the ovary, which is downy. Near P. decurrens.

62 P. *ciliata* (Knowles and Westcott, Floral Cabinet, t. 19.); folio oblongo-lanceolato emarginato coriaceo caule longiore, racemis nutantibus multifloris folio brevioribus, sepalis lineari-lanceolatis acutissimis ciliolatis lateralibus connatis, petalis conformibus multò minoribus serratis, labello linguiformi concavo serrulato intra marginem incrassato et verrucoso.——*Demerara.*——Flowers very slightly pubescent, orange-coloured.

63. P. *recurva* (Lindl. in Bot. Reg. 1841, misc. 1.); folio obovato coriaceo subobliquo petiolo pluries longiore, spicâ brevi recurvâ, floribus pubescentibus, sepalis lateralibus connatis, petalis membranaceis rhombeis acutis, labello membranaceo ovato utrinque sinuato obtuso, columnæ margine petaloideo incurvo.——*Brazil.* ?——A small creeping plant, with short recurved spikes of dull pale purple flowers, which smell like sliced cucumber.

64. P. *villosa* (Knowles & Westcott, Fl. Cab. v. 2. p. 78. *Specklinia ciliaris*, Lindl. in Bot. Reg. 1838. misc. no. 40.); folio coriaceo ovali trinervi cauli æquali laxè vaginato, spicis fasciculatis densifloris folio duplò brevioribus, sepalis carinatis longè ciliatis lateralibus ferè ad apicem usque connatis basi saccatis, petalis oblongis nanis apice ciliatis, labello obovato-oblongo obtuso ciliato.——*Mexico.* ——The whole plant is about four inches high. The flowers are very small and purple. The sheaths of the stem are altogether like those which are so characteristic of Lepanthes.

Section 3. AGGREGATÆ. Pedunculi in sinu foliorum aggregati uniflori breves.

* *Pubescentes.*

65. P. *scabripes* (Lindl. in Bot. Reg. 1839. misc. 155.); folio lineari-lanceolato apice tridentato caule longiore, vaginâ pilosâ caulis medium subæquante, flore solitario pubescente, ovario tomentoso, sepalis quam petala triplo-longioribus acutis lateralibus connatis, labello spathulato rotundato.——*Brazil.*——Remarkable for the rough hairy sheath of the stems.

66. P. *vittata* (Lindl Bot. Reg. 1838. misc. 133.); folio ovali crassissimo, caule tereti, spicâ distichâ folio multò breviore, floribus tomentosis, sepalis oblongis planiusculis intus lævibus superiore longiore et angustiore sub apice calloso lateralibus acutissimis falcatis semiconnatis, petalis obovatis acutis serratis, labello ovato carnoso obtuso lævi basi excavato biauriculato margine scabro, columnâ petalorum longitudine, clinandrio cucullato crenulato.——*Mexico.*

67. P. *breviflora* (Lindl. Bot. Reg. 1841. misc. 125.); folio carnoso obovato-oblongo apice rotundato subtus purpurascente, floribus sessilibus paucis fasciculatis pilosis, sepalis ovatis lateralibus connatis intùs lævibus, petalis ovatis apiculatis, labello carnoso obovato lævi basi excavato pone apicem angulato et subdenticulato.—— *Mexico.*——Very near P. aphthosa, with which it agrees in the colour of its flowers. The principal differences are the following: P. breviflora has much shorter and broader flowers; they are more hairy; and they are destitute of tubercles inside the sepals; the labellum is obovate, and angular, as if about to produce a tooth, on each side near the apex; finally, the leaves are obovate and stained with purple, instead of being oval and sharp pointed.

68. P. *aphthosa* (Lindl. in Bot. Reg. 1838. misc. 71. *P. peduncularis*, Hooker, Journ. Bot. III. t. 9.); folio ovali coriaceo subtùs discolore cauli carinato triquetro æquali. spathâ bivalvi pauciflorâ, floribus subsessilibus tomentosis carnosis fragilibus, sepalis oblongis convexis subæqualibus intus papillosis lateralibus basi connatis, petalis ovatis acutis glabris subdiaphanis, labello ovato carnoso obtuso antice papilloso basi excavato glabro, columnâ petalorum longitudine, clinandrio cucullato crenulato. ——*Mexico.*——Its leaves are between three and four inches long, dull purple at the edge, and brighter underneath; the flowers are dull yellow.

69. P. *ophiocephala* (Lindl. in Bot. Reg. 1838. misc. 48.); folio oblongo emarginato concavo carnoso caule breviore, flore solitario e spathâ duplici membranaceâ carinatâ erumpente, sepalis oblongis obtusis hiantibus intus papillosis extùs pubescentibus inferiore latiore emarginato, petalis lineari-oblongis intus villosis labello duplò minore lineari-ovato obtuso carnoso glabro canaliculato marginibus elevatis truncatis.——*Mexico.* ——It has one solitary flower protruding from the base of the leaf, and so similar to the head of a snake with the jaws open, that it is difficult at first sight to believe it really a flower that one looks upon. To add to the deception, the small labellum is shaped like a tongue, and moves up and down. The stem is strong, terete, six inches long, with one long striated brown sheath in the middle; the leaf is remarkably thick and fleshy, and above four inches long; the flower is dull yellowish brown, spotted with dull purple, and nearly three-quarters of an inch long.

** *Læves;* a, *labello lineari v. oblongo.*

70. P. *grandiflora* (Lindl. in Bot. Reg. sub fol. 1797.); folio perfoliato oblongo-lanceolato caudato apice tridentato, pedunculis unifloris fasciculatis, sepalo supremo ventricoso acuminato lateralibus in unum connatis recurvis triplò latiore, petalis lineari-lanceolatis hispido-ciliatis, labello breviore unguiculato subrotundo carnoso ciliato supra unguem excavato. ——*Peru.*——Leaf from four to five inches long, and from one and a half to three-quarters of an inch in breadth.

71. P. *octomerioides* (Lindl. in Comp. to Bot. Mag. 2.); folio oblongo-lanceolato subemarginato caule (pedali) duplo breviore, floribus fasciculatis, sepalis liberis carnosis obtusis, petalis æquilongis lineari-lanceolatis carnosis obtusis, labello minimo ovato canaliculato integerrimo glabro.——*Mexico.* ——A tall species, very much like an Octomeria.

72. P. *fragilis* (Lindl. in Bot. Reg. 1841. misc. 188.); folio ovato-oblongo plano carnoso caule compresso canaliculato duplò breviore, pedunculis aggregatis brevibus (2-floris) folio adpressis, floribus carnosis fragilibus glaberrimis, sepalis lateralibus ad apicem usque cohærentibus supremo lineari recto, petalis cuneatis apiculatis columnæ apice denticulatæ subæqualibus, labello lineari apice rotundato basi utrinque paululum dilatato et denticulato superficie lævigatâ.——*Brazil.*——This little plant has the habit of P. prolifera; but its leaves are flat, not folded together, and it is not proliferous. The flowers are bright orange-yellow, and very brittle, like wax; with a double row of minute purple dots along the middle of the labellum.

73. P. *circumplexa* (Lindl. in Bot. Reg. 1838. misc. 27.); folio coriaceo ovato emarginato in petiolum carinatum canaliculatum ipsi æqualem angustato, caule subnullo, pedunculo basi folii immerso et circumplexo,

floribus capitatis ovariisque pubescentibus, capitulo disticho sexfloro basi vaginato, sepalis hiantibus erectis inferioribus in unum oblongum rotundatum supremo brevius connatis : supremo angustiore subpanduriformi, petalis lineari-oblongis ciliatis, labello crasso calceiformi serrulato margine calloso.——*Mexico.*——Flowers small, dull dirty brownish yellow.

74. P. *Pöppigii* (Lindl. in Comp. to Bot. Mag. 2. *Myoxanthus monophyllus*, Pöppig, t. 88.) ; folio lanceolato emarginato, sepalis setaceo-acuminatis lateralibus basi connatis, petalis conformibus, labello lineari-lanceolato obtuso pedi producto columnæ adnato, ovario pubescente.——*Peru.*——Myoxanthus differs from Pleurothallis in nothing except the lengthened base of the column ; but this is variable in degree throughout the most genuine species of Pleurothallis, and in P. succosa, Mathewsii, petiolaris, &c. exists as strongly as in Myoxanthus.

75. P. *affinis* (Lindl. in Comp. to Bot. Mag. 2.); folio lanceolato tridentato, sepalis setaceo-acuminatis liberis, petalis conformibus, labello ovato-oblongo obtuso pedi producto columnæ adnato, ovario pubescente.——*Peru.*

76. P. *ruscifolia* (L. no. 1. Hook. Ex. fl. t. 197.); folio ovali-lanceolato caulis longitudine, floribus fasciculatis, spathâ bivalvi, pedicellis 2-3-bracteatis filiformibus floribus longioribus, sepalis ovato-lanceolatis : lateralibus connatis, petalis lineari-lanceolatis minoribus, labello oblongo undulato obtuso.——*Jamaica.*

77. P. *muscifera ;* caulis vaginis maculatis, folio oblongo-lanceolato obtuso, sepalo supremo acuminatissimo obtuso lateralibus brevioribus ultra dimidium connatis lanceolatis, petalis linearibus clavatis patentissimis, labello lineari repando basi concavo apice carnoso.——*Guatemala.*——A very curious species, with the flowers more patent than in any other.

78. P. *bidentata* (Lindl. in Bot. Reg. sub t. 1797.) ; rhizomate repenti filiformi, caulibus ascendentibus folio oblongo-lanceolato apice bi-tridentato longioribus, floribus pedicellatis subsolitariis, sepalis ecarinatis, labello lineari obtuso apice ciliato.——*Rio Janeiro.*——A creeping species, with very small flowers.

79. P. *angustifolia* (Lindl. in Bot. Reg. sub t. 1797.); rhizomate repenti filiformi, caulibus ascendentibus folio lineari-lanceolato longioribus, floribus pedicellatis subsolitariis, sepalis carinatis, petalis lanceolatis denticulatis, labello lineari acuto marginibus pone basin incrassatis.——*Mexico.*——Very like the last, but much smaller.

80. P. *glanduligera* (Lindl. in Comp. to Bot. Mag. 2.) ; folio ovali carnoso tridentato racemis brevibus 2-3-floris fasciculatis triplo longiore, calycis bilabiati sepalis carnosis basi connatis lateralibus agglutinatis supremo oblongo brevioribus, petalis lanceolatis serratis, labello ovato unguiculato obtuso apice piloso basi utrinque auriculato : auriculis minimis triglandulosis.——*Rio Janeiro.*——Flowers pale yellowish green, faintly streaked with dull purple.

81. P. *orbicularis* (*Specklinia orbicularis*, Lindl. in Bot. Reg. 1838. misc. 41.); folio subrotundo-ovato emarginato caule breviore, floribus fasciculatis, sepalis lineari-oblongis glabris inferiore bipartito, petalis ellipticis acutis serratis, labello ovato rostrato basi concavo apice ciliato obtuso, columnâ apice serratâ.——*Demerara.*

82. P. *discoidea* (Lindl. in Bot. Reg. sub t. 1797.) ; caulibus strictis folio ovato-lanceolato brevioribus, pedunculis solitariis unifloris, sepalis oblongis acutis lateralibus omnino connatis, petalis linearibus acuminatis decurvis, labello cordato-ovato undulato obtusiusculo sepalis subæquali.——*Trinidad.*——Flowers yellow with a sanguine spot, which is oblong and two-toothed, in the middle of the lip.

83. P. *Lingua;* cæspitosa, folio spathulato acuto emarginato carnoso caule multò longiore, floribus solitariis aut aggregatis, sepalis linearibus acuminatis lateralibus basi valdè productis apice liberis, petalis multo brevioribus obovatis obtusis apiculatis, labello lineari obtuso apice convexo.——*Brazil.*——Found on the Organ Mountains by Mr. Miers. It has altogether the appearance of Pl. Lanceola. The leaves are about an inch high, including the short stem.

84. P. *tribuloides* (L. no. 6.); "caule brevissimo monophyllo, folio lanceolato obtuso emarginatove, pedunculo brevissimo unifloro, capsula globosa echinata."——*Jamaica.*—— Flores minuti rubri, bracteis geminis ovatis parvis sub germine. Sepala ovata: lateralibus semiconnatis intus punctatis. Petala colore saturatiore. Labellum oblongum, obtusum, concavum, recurvatum, striatum, margine ciliato.

** *Læves;* b. *labello cordato.*

85. P. *tentaculata* (Lindl. in Comp. to Bot. Mag. 2. *Restrepia tentaculata,* Pöppig & Endl. gen. & sp. t. 59.); folio oblongo obtuso plano coriaceo caule subbreviore, floribus 2-4 longè pedunculatis disepalis, sepalis lineari-lanceolatis acuminatis subæqualibus infimo emarginato, petalis patentibus filiformibus æquilongis, labello lineari basi utrinque lobulo rotundato acuto, clinandrio alto dentato.——*Peru.*——Stem and leaf each about eight inches long. Flower-stalks, including the ovary, two inches; and the sepals the same length. Sepals white and transparent. Petals and lip dark purple. This is not a Restrepia, because it has only two pollen-masses.

86. P. *Hartwegii;* folio lanceolato coriaceo cauli valido breviore, floribus densè aggregatis subsessilibus disepalis, sepalo inferiore cymbiformi obtuso superiore multò latiore, petalis lanceolatis æquilongis, labello nano hastato-cordato unguiculato basi altè canaliculato tum deflexo utrinque supra flexuram lobato-crispato apice ovato concavo serrato, columnâ tereti.——*Loxa.*——This is a very remarkable plant. Its thick leathery leaves are nine inches and more in length, and the stem that bears them is much longer, and as stout as a reed. The flowers are large, and apparently of some pale colour, densely aggregated. The column seems quite terete, and has an anther dorsal with respect to the stigma. The pollen-masses are two.

87. P. *laurifolia* (L. no. 2.); "caule monophyllo, folio oblongo acuminato basi angustato, floribus fasciculato-congestis, foliolis calycinis exterioribus lateralibus apice liberis."——*Popayan.*——Perhaps the same as P. succosa.

88. P. *succosa* (L. no. 3. *P. multicaulis,* Pöppig & Endl. n. g. & sp. t. 82.); caule tereti folio ovato-lanceolato succoso triplò longiore, floribus fasciculatis subsessilibus, sepalis lanceolatis: lateralibus omninò connatis, petalis linearibus subulatis, labello minimo cordato ovato carnoso recurvo columnæ longitudine.——*Peru.*——Caulis semipedalis. Folium 2 uncias longum. Petala integra, sepalis paulò breviora. Columna nana, anthera horizontali subglobosa.

89. P. *tridentata* (Klotzsch in Allg Gartenz. no. 37. 1840); caule secundario tereti monophyllo, folio oblongo-lanceolato superne attenuato apice tridentato basi rotundato, spathâ univalvi conduplicato-carinatâ, floribus minutis aggregatis flavis brevi-pedicellatis, pedicellis 1-bracteatis, bracteis amplexicaulibus vaginatis apice obsoletè 2-3-dentatis pedicello brevioribus, perigonii foliolis nudis exterioribus carinatis lateralibus con-

natis, interioribus linearibus acutis, labello parvo subcordato-orbiculari. ——*Caraccas.*

90. P. *scabrilinguis* (Lindl. in Comp. to Bot. Mag. 2.); folio cordato-lanceolato apice tridentato caule duplò longiore, floribus subsolitariis, sepalis ovatis convexis subæqualibus lateralibus omninò connatis, petalis brevioribus lineari-subulatis serrulatis, labello unguiculato oblongo sagittato piloso venâ intermediâ apice varicosâ.——*Peru.*——The habit of this plant is the same as of P. succosa, but the leaves are more horizontal.

91. P. *cordata* (L. no. 4.); caule tereti sulcato folio subrotundo coriaceo horizontali altè cordato acuminato multo longiore, floribus fasciculatis e spatha brevi coriacea subexsertis. ——*Peru.*——One of the largest species, with stems a foot high, and almost destitute of sheaths.

92. P. *undulata* (Pöppig & Endlich. 1. p. 48.); caule semitereti folium ovato-lanceolatum acuminatum cordatum undulatum membranaceum horizontale triplò excedente, floribus in sinu folii fasciculatis paucis pedunculos spathâ truncatâ membranaceâ inclusos æquantibus, sepalis oblongo-lanceolatis acuminatis inferioribus ad apicem usque connatis, labello oblongo apice obtuso bidentato erecto plano.——*Peru.*——This is very near P. cordata, if not the same. Pöppig and Endlicher state that it differs in the leaves being coriaceous and undulated.

93. P. *atropurpurea* (*Specklinia atropurpurea*, Lindl. in Bot. Reg. sub t. 1797.); vaginis caulis 2-3 ventricosis, folio oblongo plano 7-9-venio, flore solitario subsessili, petalis 3-cuspidatis, labelli laminâ sagittatâ.——*Jamaica.* ——Folium 2½ poll. longum, basi angustatum. Vaginæ infundibulares, pollicem longæ, in caulem 2-pollicarem. Flores atropurpurei. Ovarium hexapterum; alis apice truncatis petalinis minoribus. Alabastrus semunciam longus, angustus, falcatus. Sepala anteriora basi gibbosa, oblongo-linearia. Petala nana, vix 2 lineas longa, ovata, 3-cuspidata, obliqua, sæpiùs venâ alterâ excurrente, alterâ in dimidio majore petali abbreviatâ. Labellum unguiculatum, in columnam pronum, cum ejus basi articulatum; ungue lineari, 3-venio axi cristato, laminâ sagittatâ apicibus posticis obtusis. Columna petaloideo-alata, apice tridentata.

94. P. *papillosa* (Lindl. in Bot. Reg. sub fol. 1797.); caulibus strictis folio angustè oblongo apice tridentato paulò longioribus, pedunculis subaggregatis unifloris flore vix longioribus, sepalis campanulatis lateralibus semiconnatis supremo oblongo brevioribus, labello subhastato obtusissimo apice vittisq. duabus elevatis carnosis papillosis.——*Brazil.*——Flowers of rather large size.

** *Læves; c. labello trilobo.*

95. P. *sicaria* (Lindl. in Bot. Reg. 1841. misc. 187.); folio oblongo angusto plano in caulem triplò longiorem triquetrum canaliculatum deorsùm attenuatum angustato, pedunculis brevibus 2-3-floris cernuis aggregatis, sepalis lineari-lanceolatis patulis chartaceis lateralibus ad apicem usque cohærentibus sed facilè separabilibus, petalis ovalibus acutissimis serratis, labello lanceolato acutissimo bilamellato utrinque unidentato, clinandrio serrato.——*Trinidad.*——This species is remarkable, in its stem being exactly like a bayonet blade with the point downwards. It grows nearly a foot high. The flowers are greenish yellow with pale purple stripes along the petals, and none at all on the labellum.

96. P. *retusa* (*Dendrobium retusum*, La Llave, 2. 40.); caule elongato, folio lanceolato carnoso retuso longitudinaliter sulcato margine integro revoluto, pedunculis plurimis filiformibus in sinu folii fasciculatis.——

Mexico.——"Flowers pale purplish brown, somewhat spurred." A very doubtful plant, of which nothing more is known.

Section 4. MUSCOSÆ. Pedunculi filiformes, simplices aut bifidi, rariùs apice multifidi (folio plerumque longiores). Species maximâ pro parte minores, nonnunquam minimæ.

97. P. *ephemera;* folio oblongo emarginato basi paulò angustiore pedunculo capillari paucifloro nunc gemino subæquali, ovario trialato, sepalis linearibus acuminatis carinatis lateralibus basi connatis, petalis nanis lanceolatis acuminatis, labello lineari recurvo.——*Brazil,* Descourtilz.——Flowers orange-yellow, nearly an inch long. Petals pink. *Obs.* The lateral sepals are described by M. Descourtilz as distinct, except at the base; they are represented in his drawing as being connate

98. P. *linearis* (*Specklinia? linearis,* L. no. 5.); caule ancipiti folio lineari-oblongo subtriplò longiore, spicis capillaribus bifloris: altero folio subæquali, altero duplò breviore.——*Mexico* and *Peru.*——Caules cæpitosi, 2-3-unciales. Folia uncialia, apice æqualia, obtusa.

99. P. *parvifolia* (Lindl. in Comp. to Bot. Mag. 2.); folio minimo ovali acuto emarginato subsessili, pedunculo solitario folio longiore, sepalis oblongis acutis inferiore emarginato majore, petalis nanis obovatis, labello oblongo obtuso apice maculato.——*Brazil.*

100. P. *muscoidea* (Lindl. in Bot. Reg. 1838, misc. 165.); cæspitosa, acaulis, folio ovali biconvexo, pedunculo setaceo bifloro, perianthio explanato ringente, sepalis lineari-lanceolatis lateralibus basi imâ connatis, petalis multò minoribus conformibus, labello oblongo-lineari obtuso canaliculato, polliniis 2 pyriformibus connatis.——*Brazil.*——The smallest Orchidaceous plant known. Leaves 2½ lines long. The peduncle is as fine as a hair and about four lines long. Flowers purple.

101. P. *Lanceola* (Spreng. Syst. 3. 731. *Specklinia Lanceola,* L. no. 2.); caulibus brevissimis cæspitosis, folio lanceolato subpetiolato, pedunculo capillari bifloro longitudine folii, sepalis obtusis patentibus, petalis apice subciliatis, labello oblongo obtuso concavo recurvo (purpureo margine luteo).——*Jamaica.*

102. P. *trifida;* cæspitosa, foliis lineari-lanceolatis marginatis apice tridentatis cauli æqualibus, pedunculis foliorum longitudine apice plurifloris, sepalis obtusis antico bidentato concavo, petalis spatulatis apice rhombeis, labello oblongo retuso scabro a latere repando, columnâ petaloideâ 3-fidâ——*Brazil.*——The Organ Mountains furnished Mr. Miers with this small species, whose leaves and stems together are not more than an inch and a half high.

103. P. *plantaginea (Specklinia plantaginea,* Pöppig & Endl. 1 t. 89 A.); cæspitosa, caule brevissimo, foliis petiolatis spathulato-linearibus, pedunculis capillaribus unifloris, sepalis ovato-oblongis acutis ad medium connatis, labello lanceolato obtuso.——*Peru.*——Very near Lanceola, perhaps not distinct. The Specklinia graminea of Pöppig and Endlicher seems to be rather a Maxillaria. It cannot be even of the Pleurothallidous division.

104. P. *pusilla* (*Dendrobium pusillum,* H. B. K. 1. 357.); caule monophyllo, folio elliptico acutiusculo, pedunculis solitariis aut ternis uni vel bifloris, sepalis oblongo-lanceolatis acuminato-filiformibus.——*Loxa.*——Herba minuta. Caules simplices, apice monophylli, subsemipollicares. Folium

coriaceum, nervoso-striatum, 3 lineas longum. Pedunculi folio duplò longiores. Flores 2 lineas longi, flavescentes. Sepalum supremum latius, concavum, liberum; lateralia plana. Petala oblonga, sepalis triplò breviora. Labellum oblongum, subunguiculatum.

105. P. *hymenantha* (Lindl. in Bot. Reg. sub fol. 1797.); folio lineari-lanceolato apice obsoletè 3-dentato pedunculis flexuosis capillaribus subæquali, bracteis minimis, sepalis acutis lateralibus semisejunctis, petalis acuminatis parum brevioribus, labello oblongo obtuso subundulato complicato.——*Brazil.*——Resembles P. Lanceola in habit.

106. P. *uniflora* (Lindl. in Comp. to Bot. Mag. 2. 355.); folio lineari-lanceolato subsessili, pedunculo unifloro folii longitudine, sepalis oblongo-lanceolatis acutis subæqualibus inferiore emarginato, labello lineari-lanceolato obtuso basi concavo.——*Brazil.*——Near P. Lanceola, which it quite resembles in habit.

107. P. *sertularioides* (Spreng. syst. 3. 731. *Specklinia sertularioides*, L. no. 1.); rhizomate repenti articulato, caulibus brevissimis, folio lanceolato subpetiolato, pedunculis unifloris folio brevioribus, sepalis liberis lineari-lanceolatis patentibus, petalis conformibus brevioribus, labello lanceolato, clinandrio integerrimo.——*Jamaica.*——Rhizoma Sertulariæ modo articulatum, unde nomen. Pedunculi capillares, longitudine ferè foliorum, squamis spathaceis duabus in medio. Flores albidi, apicibus flavis. Labellum recurvum, basi concavum.

108. P. *Gardneri;* rhizomate repenti intricato, foliis ovalibus marginatis basi angustatis, pedunculis capillaribus foliis multò longioribus, sepalis lineari lanceolatis lateralibus ultra medium connatis, petalis conformibus æquilongis apice serrulatis, labello unguiculato rhombeo acuto lamellis duabus elevatis supra basin.——*Brazil.*——A discovery of Professor Gardner's, with much the appearance of P. sertularioides.

109. P. *punctata* (Lindl. in Bot. Reg. sub fol. 1797.); caulibus strictis folio crasso ovali plano-convexo marginato longioribus, pedunculis capillaribus paucifloris, petalis lanceolatis apice pubescentibus, labello unguiculato cordato-sagittato obtuso, columna elongata.——*Brazil.*——A very small plant, not much more than an inch high. Flowers dark purple. Leaves dotted with purple on the under side.

110. P. *corniculata* (*Specklinia emarginata*, L. no. 3. *Epidendrum? monophyllum*, Hooker Exot. Fl. t. 109.); caulibus folio oblongo emarginato subæqualibus, pedunculis bifloris folio brevioribus, sepalis lanceolatis, petalis duplò brevioribus, labello lineari-lanceolato basi gibboso.——*Jamaica.*

111. P. *seriata* (Lindl. in Bot. Reg. 1840, misc. 175.); folio carnoso plano ovali emarginato caule multò longiore, pedunculo filiformi paucifloro folii longitudine, sepalo dorsali carinato margine reflexo antico latiore acuto emarginato, petalis brevibus spathulatis carnosis lævibus, labello oblongo obtusissimo pubescente medio exarato lobulis lateralibus minimis rotundatis.——*Brazil.*——An inconspicuous species, with pale yellowish-green flowers marked with rows of purple dots. It is a beautiful object when examined microscopically.

112. P. *articulata;* rhizomate repenti intricato articulato polyphyllo, foliis ovalibus mucronatis marginatis basi angustatis caulibus brevissimis multò longioribus, pedunculis longissimis filiformibus bifloris, sepalis lateralibus dorsalibus semiconnatis, petalis linearibus acuminatis sepalis æqualibus, labello parvo pubescente obovato trilobo; laciniâ intermediâ carnosâ lateralibus membranaceis nanis obtusis.——*Brazil.*——A very remarkable species, found by Prince Maximilian of Wied Neuwied, creep-

ing over the trunks of trees, and covering them with a dense entangled mass of small foliage. In habit it accords entirely with P. sertularioides.

113. P. *Miersii;* rhizomate filiformi repenti intricato, foliis ovalibus mucronatis marginatis 3-nerviis, pedunculis setaceis unifloris folio longioribus, bracteâ rotundatâ, sepalo dorsali ovato acuminato lateralibus ovatis semiconnatis, petalis lanceolatis serrulatis, labello concavo oblongo acuto. ——*Brazil.*——This very minute species was found upon the Organ Mountains by John Miers, Esq. The flowers are the smallest of the genus, and nearly transparent. The leaves are not more than two lines long.

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92. MAXILLĀRĬĂ bractēscēns.

M. *bractescens;* pseudobulbis conicis elongatis sulcatis, foliis latis plicatis, scapo trivaginato, racemo elongato paucifloro, bracteis linearibus acuminatis scariosis floribus longioribus, sepalis oblongo-lanceolatis margine revolutis, petalis conformibus minoribus, cornu brevi rotundato, labello trilobo apice recurvo obtuso venis omnibus elevatis sinuosis rugosis callo elevato rugoso apice subtrilobo.

This is a plant with all the habit of M. squalens. The flowers are however twice as large, from an inch to an inch and half apart, of a dull yellow, with a reddish brown lip. The scape bears five or six flowers, and is fully a foot and half high. The very long and curious narrow bracts readily indicate it. Sent to the Horticultural Society from Loxa by Mr. Hartweg. Flowered in October last.

93. BLANDFŌRDĬĂ marginātă.

B. *marginata;* foliis supernè attenuatis acutis arcuatè patentibus margine rufo serrato, perianthio B. grandifloræ magnitudine, colore subaheneo. *Herbert in litt.*

This handsome Australian plant was introduced by Mr. Osborne of the Fulham nursery, who has obtained increase from it. It seems to be sufficiently distinguished from B. grandiflora by the less erect leaves, with a rufous serrate margin, and the coppery hue of its very showy flowers. *W.H.*

94. DENDROBIUM macrophyllum.

Lindl. in Bot. Reg. 1839. *p.* 36. *Sertum Orchidaceum, t.* 35.

The *Dendrobium macranthum* of the Botanical Magazine, t. 3970, is the same plant.

95. BOLBOPHY̆LLŬM adenopĕtălūm.

B. *adenopetalum;* foliis oblongis obtusis petiolatis basi vix bulbosis, spicâ secundâ basi laxè vaginatâ multiflorâ folio sublongiore, sepalis acuminatis, petalis spathulatis acutis intùs glandulosis, labello ovato angusto obtusè acuminato ciliato basi canaliculato.

A native of Sincapore, whence it was received by Messrs. Loddiges. The flowers are yellowish and slightly sweet-scented. It resembles B. cocoinum, from which its want of a pseudo-bulb, or at most its extremely small one, and its petals not serrated but glandular on the inside, readily distinguish it. Possibly it may be one of the plants included by Dr. Blume under his Diphyes flavescens; at least it must be very near that species.

96. LYCĀSTĒ plānă.

L. *plana;* bracteâ supremâ ventricosâ cucullatâ ovario longiore, sepalis oblongis planis basi in cornu brevi conico connatis, petalis conformibus apice tantùm recurvis, labelli trilobi lobis lateralibus apice crenulatis intermedio subrotundo serrato callo elevato obtuso obsoletè trilobo, columnâ pubescente, antherâ villosâ.

This plant is nearly allied to the Maxillaria, or Lycaste, macrophylla, of which it has quite the habit. It differs in the petals being quite even not undulated, and in the lateral sepals being much more exactly oblong; the tubercle on the lip is also much more obtuse. In colour too they are different. *L. macrophylla* has olive green sepals, and petals almost colourless. *L. plana* has the sepals a deep rich madder red inside, and the petals are richly tipped with crimson.

97. GLADĬŎLŬS æquinoctiālĭs. *Herbert.*

G. *æquinoctialis;* cormo modico, foliis erectis subsemunciam latis glabris; caule circiter decemfloro [incurvo ?], bracteis circiter triuncialibus tubo 5¼ unc. limbo 1⅜ unc. [albo ?] rubro inferne striato.—*W. H.*

From the neighbourhood of Sierra Leone. This plant now exists at Spofforth, but has not flowered. It is extremely shy of cultivation. A dried specimen of it exists in Dr. Lindley's herbarium. It is the only known tropical Gladiolus. The genus has not been found in the Western hemisphere, and the Gl. segetalis of Madeira was possibly introduced with grain. Probably it does not extend eastward beyond the Caspian. The limits of Trichonema are nearly similar; the

Socotra plant, occupying an intermediate station between those of the Cape and of Europe. Lapeyrousia advances into Abyssinia, but has not been found further north. *W. H.*

98. GLADĬŎLŬS oppositiflōrŭs.

Herbert Amaryll. p. 365. G. floribundus, *errore Hortulanorum.*

G. *oppositiflorus ;* cormo maximo tunicis binis pallidè brunneis densè parallelo-fibrosis exteriore ad basim proximâ infra medium cormum affixâ, tertiâ et quartâ pallidioribus glaberrimis circiter et supra medium affixis, foliis latis subglaucis glabris erectis, caule forti erecto multifloro ramis 2-3-multifloris, floribus bifariam spectantibus, tubo brevi, limbo undulato subalbido rubro suffuso petalis brevioribus labio inferiore rubro vel purpureo striato, capsulâ longè obovatâ, seminibus pallidè brunneis foliaceo-alatis. *W. H.*

A native of Madagascar, where it was found by Forbes, a young man employed some years since as a collector by the Horticultural Society. It is also, perhaps, a native of Port Natal. The seeds are very like those of Gl. natalensis in form and colour, and it may be easily mixed with that species. The *Glad. Gandavensis* of Gardens is a cross between G. oppositiflorus and natalensis; so also is G. ramosus of the Gardens, between G. oppositiflorus and cardinalis or Cardinali-blandus. *W. H.*

99. TRICHONĒMĂ edūlĕ. *Herbert.*

T. *edule ;* cormi modici edulis tunicis membranaceis nitidis badiis supernè setosè apiculatis, foliis tenuibus sub-8-uncialibus, caulibus successivis sub-4-unc. involucri bracteis æqualibus ⅜-unc. perianthio purpureo-cœrulescente circiter semunciali.—*W. H.*

A native of Socotra, where it was found by Lieut. Wellsted, the distinguished Arabian traveller, in vegetable earth, in the small hollows of the primitive limestone rocks, and on the sides of hills, two miles from the coast. The natives feed upon the corms. *W. H.*

100. STELIS atropurpŭrĕă.

Hooker in Bot. Mag. t. 3975.

This is a good figure of *St. ciliaris,* Lindl. in the Companion to the Botanical Magazine, vol. ii. p. 353., without the long ciliæ, which, although very conspicuous when fresh, almost disappear in a dry state.

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TO THE

BOTANICAL REGISTER,

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——— bractescens	1841	..	46
——— longilabris	1841	..	69
——— armeniaca	1841	42	70
——— pulchella	1841	..	106
——— profusa	1842	..	3
——— polyura	1841	..	114
——— ———	1842	32	..
——— mucronata	1842	..	27
——— convallarioides	1841	62	121
——— paniculata	1842	..	33
——— pannea	1842	..	79
——— nutans	1840	..	196
——— planicaulis	1840	..	4
——— pumila	1838	..	147
——— velutina	1840	..	209
Erica chloroloma	1838	17	..
Erigeron squarrosum	1841	..	92
Erysimum Perofskianum	1839	..	79
Eucalyptus calophylla	1841	..	157
Eulophia squalida	1841	..	164
Euphorbia rigida	1838	43	..
——— veneta	1838	6	..
Eurybia glutinosa	1839	..	112
——— chrysotricha	1841	..	47
Euthales macrophylla	1840	..	119
——— ———	1841	3	..
Eysenhardtia amorphoides	1839	..	55
Fabiana imbricata	1839	59	..
Fernandezia lunifera	1839	..	147
Fuchsia fulgens	1838	1	..
——— cylindracea	1838	66	97
——— cordifolia	1841	70	117
——— radicans	1841	66	167
——— corymbiflora	1840	70	202
——— splendens	1842	67	..
——— Standish's	1840	2	..
Funkia Sieboldi	1839	50	..
Galbanum	1839	..	107
Galeandra Baueri	1840	49	..
Gardoquia betonicoides	1838	..	159
Garrya laurifolia	1840	..	53
Genista bracteolata	1840	23	..
Geranium rubifolium	1840	67	..
——— erianthum	1841	..	91
——— ———	1842	52	..

		pl.	misc.
Geranium tuberosum	1839	10	..
Gesneria reflexa	1840	..	39
——— Suttoni, white var.	1842	..	40
——— longifolia	1841	..	190
——— ———	1842	40	..
——— discolor	1841	63	96
——— Zebrina	1842	16	..
Gladiolus crispiflorus	1842	..	81
——— caucasicus	1842	..	82
——— æquinoctialis	1842	..	97
——— oppositiflorus	1842	..	98
Glaucium rubrum	1839	..	78
Glossocomia ovata	1842	3	..
Godetia albescens	1841	..	131
——— ———	1842	9	..
——— grandiflora	1841	..	132
——— ———	1842	61	..
Gompholobium versicolor	1839	43	62
Gonatanthus sarmentosus	1841	..	83
Gongora fulva	1839	51	..
——— bufonia	1841	2	..
——— vitellina	1841	..	4
——— maculata	1841	..	101
——— nigrita	1839	..	86
Goodyera rubicunda	1839	..	92
Govenia Gardneri	1839	..	51
——— lagenophora	1839	..	66
——— liliacea	1838	13	..
Grammatophyllum multiflorum	1838	..	80
———	1839	65	..
——— var. tigrinum	1842	69	..
Grevillea Thielemanniana	1839	..	72
Grobya galeata	1840	..	197
Guaiacum officinale	1839	9	..
Gunnia picta	1838	..	77
Habranthus pratensis	1842	35	..
Hæmanthus magnificus	1841	..	153
Hakea ruscifolia	1841	..	158
Hardenbergia digitata	1840	60	142
Hartwegia purpurea	1840	..	96
Heimia salicifolia	1841	60	..
Helichrysum scorpioides	1838	..	84
Helleborus lividus	1838	54	..
——— orientalis	1841	..	112
——— ———	1842	34	..
——— olympicus	1841	..	113
——— ———	1842	58	..
Hemiandra emarginata	1841	..	156
Herbertia Drummondiana	1842	..	83
Heteropteris undulata	1841	..	48
Hexadesmia fasciculata	1842	..	46
Hexopia crucigera	1840	..	90
Hibbertia perfoliata	1841	..	94
Hibiscus Cameroni	1840	..	31
——— Wrayæ	1840	69	149
Higginsia mexicana	1841	..	137
Hippeastrum organense, *var.* compressum	1842	..	35
Hoitzia mexicana	1838	..	21
Hormidium	1839	..	13
Hoteia japonica	1839	..	133
Houlletia vittata	1841	69	100
Hovea crispa	1839	..	19
——— pungens	1839	..	28

SPECIES DESCRIBED.

		pl.	misc.
Hovea Manglesii	1838	62	..
——— racemulosa	1842	..	36
Hoya coriacea	1839	18	..
——— ———	1840	..	1
Huntleya Meleagris	1838	..	20
——— ———	1839	14	..
——— violacea	1839	..	17
Hydrotænia Meleagris	1838	..	128
——— ———	1842	39	..
Hymenocallis Harrisiana	1840	..	63
——— panamensis	1841	..	146
——— rotata	1840	..	55
Impatiens candida	1840	..	204
——— ———	1841	20	..
——— rosea	1841	27	22
——— glanduligera	1840	22	..
——— macrochila	1840	8	..
——— tricornis	1840	9	..
Indigofera dosua	1842	57	..
Inga Harrisii	1839	41	..
Ionopsis teres	1838	..	181
Ipomœa ficifolia	1840	..	221
——— ———	1841	12	..
——— longifolia	1839	..	124
——— ———	1840	21	..
——— batatoides	1841	36	23
——— pendula	1840	..	201
——— Purga	1839	..	136
——— tyrianthina	1838	..	162
——— Schiedeana	1838	..	22
Iris deflexa	1840	..	42
——— ———	1840	..	62
——— fragrans	1840	1	..
Ismene deflexa	1839	..	142
——— virescens	1841	12	..
Isochilus lividum	1839	..	45
——— grandiflorum	1841	1	..
——— graminifolium	1841	1	..
Isopogon roseus	1842	..	37
Isotropis striata	1839	..	61
Jasminum caudatum	1842	26	..
——— subulatum	1842	..	58
Juniperus tetragona	1839	..	102
——— flaccida	1839	..	103
——— mexicana	1839	..	104
——— squamosa	1839	..	18
Lælia furfuracea	1839	26	..
——— autumnalis	1839	27	..
——— albida	1839	54	4
——— flava	1839	..	143
——— ———	1842	62	..
——— majalis	1839	..	42
——— caulescens	1841	1	..
——— acuminata	1841	24	42
——— peduncularis	1842	..	10
——— superbiens	1840	..	87
——— rubescens	1840	41	25
Lalage hoveæfolia	1841	..	75
Lathyrus Armitageanus	1840	..	14
Lavatera maritima	1838	..	140
Lemonia spectabilis	1840	59	..
Leochilus carinatus	1842	..	22
——— cochlearia	1842	..	22
——— oncidioides	1842	..	22
Leptodermis lanceolata	1839	..	131

		pl.	misc.
Leschenaultia biloba	1842	2	..
Leycesteria formosa	1839	2	..
Lilium testaceum	1842	..	51
——— Thunbergianum	1839	38	..
Linaria delphinoides	1840	..	15
——— glandulifera	1841	..	51
——— venosa	1841	..	151
Lindenia rivalis	1841	..	130
Liparis pendula	1838	..	180
——— spathulata	1840	..	189
Lissanthe stellata	1840	..	2
——— ———	1840	..	13
——— verticillata	1840	..	26
Lissochilus parviflorus	1838	..	14
Loasa lateritia	1838	22	..
Lobelia discolor	1840	..	211
——— pyramidalis	1841	..	170
——— subnuda	1840	..	211
——— fenestralis	1838	47	..
——— multiflora	1840	..	17
Lopezia lineata	1840	40	60
Luisia alpina	1838	..	101
Lupinus arboreus	1838	32	..
——— Hartwegii	1839	31	..
——— Barkeri	1839	56	..
——— bilineatus (note)	1839	56	..
——— mexicanus (note)	1839	56	..
——— leptocarpus	1840	38	..
Lycaste plana	1842	..	96
Lysimachia lobelioides	1841	..	150
——— ———	1842	6	..
Macradenia mutica	1839	..	22
Malachadenia clavata	1839	..	110
Malaxis Parthoni	1840	..	214
Malva lucida	1839	..	130
——— mauritiana	1839	..	82
Mandevilla suaveolens	1840	7	..
Manglesia glabrata	1840	..	27
Marianthus cœruleopunctatus	1841	..	15
Marlea begonifolia	1838	61	..
Martynia fragrans	1840	..	206
——— ———	1841	6	..
Masdevallia infracta	1838	..	64
Matthiola odoratissima	1839	25	..
——— maderensis	1841	..	97
Maxillaria Colleyi	1838	..	161
——— cruenta	1842	13	..
——— Rollissonii	1838	40	..
——— aromatica	1842	13	..
——— vitellina	1838	..	116
——— ———	1839	12	..
——— porrecta	1838	..	173
——— macrophylla	1838	..	174
——— ———	1840	..	191
——— bractescens	1842	..	92
——— costata	1838	..	175
——— variabilis	1838	..	26
——— Brockelhurstiana	1841	..	28
——— candida	1841	..	59
——— Harrisoniæ	1841	..	168
——— placanthera	1841	..	103
——— jugosa	1841	..	104
——— barbata	1841	..	141
——— purpurascens	1841	..	142
——— madida	1838	..	74

SPECIES DESCRIBED.

		pl.	misc.
Maxillaria Boothiana	1838	..	95
——— tenuifolia	1839	8	..
——— stapelioides	1839	17	..
——— xanthina (note)	1839	17	..
——— foveata	1839	..	2
——— acutifolia	1839	..	148
——— lentiginosa	1839	..	93
——— aureofulva	1840	..	43
——— stenopetala	1840	..	43
——— cucullata	1840	12	..
——— rhombea	1840	12	..
——— Macleei	1840	..	155
——— Skinneri	1840	..	101
——— ———	1840	..	145
——— ———	1842	..	13
Medicago clypeata	1839	..	90
Medinilla erythrophylla	1838	..	158
Megaclinium oxypterum	1839	..	10
——— Bufo	1841	..	82
Microstylis excavata	1838	..	93
——— histionantha	1840	..	214
——— caulescens	1841	1	..
Miltonia candida	1838	..	29
Mimosa marginata	1838	..	152
——— Uruguensis	1842	33	..
Mina lobata	1842	..	9
———	1842	24	..
Mirbelia speciosa	1841	58	..
Morina longifolia	1840	36	..
Mormodes buccinator	1840	..	9
——— buccinator, var.	1841	..	191
——— pardinum	1838	..	176
——— ———	1839	..	7
——— lineatum	1841	..	107
——— ———	1842	43	..
——— luxatum	1842	..	66
——— aromaticum	1841	..	162
Morna nivea	1838	9	..
Morrenia odorata	1838	..	129
Mucuna pruriens	1838	18	..
Mycaranthes obliqua	1840	..	184
Nemaconia gracilifolia	1839	..	15
Nemesia floribunda	1838	39	..
Nepeta salviæfolia	1839	..	123
Nicotiana rotundifolia	1838	..	110
Niphæa oblonga	1841	..	172
——— ———	1842	5	..
Notylia punctata	1838	..	166
——— pubescens	1842	..	72
——— aromatica	1841	..	77
——— incurva	1838	..	167
——— Barkeri	1838	..	168
——— tenuis	1838	..	169
——— micrantha	1838	..	170
Oberonia cylindrica	1840	..	23
——— recurva	1839	..	8
——— Wightiana	1839	.	9
Octomeria gracilis	1838	..	55
——— grandiflora	1842	..	80
——— diaphana	1839	..	145
——— tridentata	1839	..	43
Odontoglossum Bictoniense	1840	66	..
——— stellatum	1841	..	25
——— Ehrenbergii	1841	..	85
——— pulchellum	1841	48	..

		pl.	misc.
Odontoglossum Clowesii	1839	..	153
——— citrosmum	1842	..	68
——— cordatum	1838	..	90
——— grande	1840	..	94
——— maculatum	1840	30	..
——— Rossii	1839	48	..
Œnothera fruticosa indica	1841	11	..
Olinia capensis	1840	..	212
——— acuminata	1841	..	135
——— cymosa	1841	..	136
Oncidium tetrapetalum	1838	..	56
——— brachyphyllum	1842	4	..
——— confragosum	1838	..	92
——— ascendens	1842	4	..
——— pulvinatum	1838	..	115
——— ———	1839	42	..
——— Cebolleta	1842	4	..
——— pergameneum	1842	..	7
——— hians	1838	..	124
——— raniferum	1838	48	..
——— longifolium	1842	4	..
——— luridum guttatum	1839	16	..
——— Suttoni	1842	..	8
——— trulliferum	1839	57	..
——— bicallosum	1842	..	14
——— Forbesii	1839	..	149
——— ensatum	1842	..	15
——— excavatum	1839	..	150
——— sphacelatum	1842	30	..
——— sanguineum	1839	..	68
——— nanum	1842	..	30
——— unicorne	1839	..	76
——— urophyllum	1842	54	..
——— carinatum	1840	..	45
——— intermedium	1840	..	46
——— barbatum	1842	..	74
——— unicornutum	1840	..	47
——— Carthaginense	1840	..	215
——— pelicanum	1840	..	216
——— macrantherum	1841	..	33
——— Wrayæ	1841	..	57
——— monoceras	1841	..	160
——— Barkeri	1841	..	174
——— nebulosum	1841	..	175
——— Huntianum	1840	..	137
——— pachyphyllum	1840	..	138
——— Insleayi	1840	..	21
——— incurvum	1840	..	174
——— leucochilum	1840	..	79
——— ornithorhynchum	1840	10	95
——— ampliatum	1840	..	97
——— microchilum	1840	..	193
——— Wentworthianum	1840	..	194
——— pallidum	1840	..	108
——— ramosum	1840	..	154
——— stramineum	1840	14	..
——— ———	1838	..	63
Ophelia purpurascens	1840	..	158
Opoidia galbanifera	1839	..	107
Ornithogalum geminiflorum	1838	..	106
——— divaricatum	1841	..	111
——— ———	1842	28	..
——— montanum	1838	28	..
Oxalis Darvalliana	1840	..	11
——— Ottonis	1840	..	213

		pl.	misc.
Oxalis fruticosa	1841	41	..
—— rubrocincta	1842	64	..
Oxyanthus versicolor	1840	..	150
Oxylobium capitatum	1841	..	80
Pæonia (Onæpia) Brownii	1839	30	..
Panætia fulva	1838	..	83
Papaver amoenum	1839	..	80
Passiflora hispidula	1840	..	3
—— ——	1840	..	16
—— onychina	1838	21	1
—— verrucifera	1840	52	105
Patersonia sapphirina	1839	60	..
Paxtonia rosea	1838	60	113
Pedicularis megalantha	1842	..	57
—— pyramidata	1841	..	155
Pentlandia miniata	1839	68	..
Pentstemon barbatum carneum	1839	21	..
—— crassifolium	1838	16	..
—— gentianoides	1838	3	..
Peristeria guttata	1840	..	33
Peristylus goodyeroides	1840	..	187
Pernettya angustifolia	1840	63	..
Pesomeria tetragona	1838	..	6
Phacelia fimbriata	1841	..	126
Phaius grandifolius	1839	..	40
—— bicolor	1839	..	91
—— Wallichii	1839	..	58
—— albus	1838	33	..
Phalænopsis amabilis	1838	34	..
Pharbitis Learii	1841	56	..
—— ostrina	1842	51	..
Philadelphus hirsutus	1838	14	..
—— Gordonianus	1838	..	23
—— ——	1839	32	..
—— triflorus	1838	..	51
—— laxus	1839	39	..
—— mexicanus	1840	..	70
—— ——	1841	..	118
—— ——	1842	38	..
Phlomis simplex	1841	..	102
Pholidota articulata	1839	..	57
—— undulata	1841	..	19
—— conchoidea	1840	..	198
Phycella biflora	1838	..	72
Physinga prostrata	1838	..	45
Physosiphon carinatus	1838	..	132
Picris asperrima	1838	..	108
—— barbarorum	1838	..	107
Pieris ovalifolia	1842	..	50
Pimelia incana	1838	24	..
—— crinita	1838	..	109
—— spectabilis	1841	33	18
—— prostrata	1839	..	81
Pinus oocarpa	1839	..	23
—— Llaveana	1839	..	24
—— Hartwegii	1839	..	95
—— Devoniana	1839	..	96
—— Russelliana	1839	..	97
—— macrophylla	1839	..	98
—— pseudostrobus	1839	..	99
—— apulcensis	1839	..	100
—— filifolia	1840	..	132
—— Coulteri	1840	..	133
Pisonia Olfersiana	1841	..	34
Placea ornata	1841	50	..
Plagianthus Lampenii	1838	..	25
Pleurothallis circumplexa	1838	..	27
—— marginata	1838	..	70
—— aphthosa	1838	..	71
—— vittata	1838	..	133
—— ophiocephala	1838	..	48
—— stenopetala	1838	..	182
—— muscoidea	1838	..	165
—— pectinata	1839	..	1
—— recurva	1841	..	1
—— luteola	1841	..	2
—— picta	1841	..	182
—— gelida	1841	..	186
—— sicaria	1841	..	187
—— fragilis	1841	..	188
—— peduncularis	1841	..	64
—— breviflora	1841	..	125
—— strupifolia	1839	..	3
—— bicarinata	1839	..	11
—— scabripes	1839	..	155
—— pachyglossa	1840	..	146
—— seriata	1840	..	175
—— villosa	1840	..	40
—— ciliata	1840	..	41
Podolepis contorta	1838	..	120
Podolobium berberifolium	1841	..	89
Pogonia plicata	1841	..	129
Polemonium cœruleum grandiflorum	1840	..	76
Polygonum amplexicaule	1838	..	117
—— ——	1839	46	..
—— molle	1841	..	66
Polystachya zeylanica	1838	..	144
—— clavata	1842	..	71
—— ramulosa	1838	..	142
—— luteola	1838	..	143
—— reflexa	1841	..	43
—— affinis	1839	..	44
—— bracteosa	1840	..	102
—— cerea	1840	..	208
Ponera graminifolia	1839	..	15
—— ——	1842	..	17
—— juncifolia	1842	..	17
—— striata	1842	..	17
Portulaca Thellusonii	1839	..	114
—— ——	1840	31	..
Posoqueria versicolor	1841	26	..
Potentilla insignis	1841	37	..
Pothos podophyllus	1841	..	176
Primula denticulata	1842	47	..
Pronaya elegans	1840	..	200
Protea longiflora	1841	..	136
Psoralea cinerea	1838	..	106
Pultenæa obcordata	1838	..	57
—— brachytropis	1841	..	76
Puya Altensteinii	1840	..	210
—— cœrulea	1840	11	..
—— heterophylla	1840	71	..
Quekettia microscopica	1839	..	6
Quercus auctifolia	1840	..	160
—— reticulata	1840	..	161
—— crassipes	1840	..	162
—— spicata	1840	..	163
—— mexicana	1840	..	164

SPECIES DESCRIBED.

		pl.	misc.
Quercus glaucescens	1840	..	165
—— sideroxyla	1840	..	166
—— lancifolia	1840	..	167
—— petiolaris	1840	..	168
—— mannifera	1840	..	72
—— regia	1840	..	73
—— Brantii	1840	..	74
Rhodorhiza	1841	..	152
Ribes Menziesii	1838	..	52
Rigidella flammea	1840	16	64
—— immaculata	1841	68	133
Rivea tiliæfolia	1841	..	29
Rodriguezia crispa	1840	54	..
—— ——	1839	..	139
—— laxiflora	1839	..	138
—— maculata	1840	..	218
Roepera aurantiaca	1838	..	105
Roscöea purpurea	1840	61	..
—— lutea	1841	..	159
Saccolabium gemmatum	1838	..	88
—— densiflorum	1838	..	103
—— Blumei	1841	..	115
—— calceolare	1838	..	139
—— bifidum	1838	..	5
—— compressum	1840	..	5
—— micranthum	1839	..	52
—— ochraceum	1842	..	4
Salvia Moorcroftii	1839	..	127
—— patens	1839	23	48
—— excelsa	1841	..	185
—— tubiformis	1841	44	40
—— confertiflora	1839	29	..
—— canescens	1838	36	..
—— hians	1840	..	115
—— ——	1841	39	..
—— prunelloides	1840	..	207
—— Regla	1840	..	205
—— ——	1841	14	..
Saponaria perfoliata	1839	..	83
Sarcanthus filiformis	1842	..	69
—— pallidus	1840	..	185
—— oxyphyllus	1840	..	123
Sarcochilus olivaceus	1839	..	27
—— parviflorus	1838	..	50
—— unguiculatus	1840	..	143
Satyrium papillosum	1838	..	154
—— carneum	1838	..	155
—— candidum	1838	..	153
—— pustulatum	1840	18	..
Saussurea pulchella	1842	18	..
Scaphyglottis reflexa	1839	..	21
—— stellata	1839	..	60
Scelochilus Ottonis	1842	..	23
Schizonotus tomentosus	1840	..	156
Schomburgkia marginata	1839	..	12
—— tibicinis	1841	..	119
Schubertia graveolens	1838	..	2
Schweiggeria pauciflora	1841	40	..
Scilla pratensis	1839	63	..
Scutellaria splendens	1841	..	139
Sedum miserum	1838	..	122
—— multicaule	1840	..	124
Senecio populifolius, lacteus	1839	45	..
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—— odoratus	1839	..	111
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